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PANAMA - AGRICULTURAL DEVELOPMENT LOAN

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Loan No. 525-L-010**

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PANAMA - AGRICULTURAL DEVELOPMENT LOANSUMMARY AND RECOMMENDATIONS

1. BORROWER: The Borrower will be the Government of Panama (GOP). The loan will be administered by the Ministry of Agriculture, Commerce and Industries (MACI). In the administration of the supervised agricultural credit activity, the Instituto de Fomento Económico (IFE) will participate by providing the banking services required.

2. AMOUNT OF LOAN: The A.I.D. loan will be for up to \$4.0 million.

3. TOTAL COST OF THE PROJECT:

<u>Source</u>	<u>U.S. Dollar Costs</u>	<u>Local currency costs U.S. \$ equivalent</u>	<u>Total US \$</u>	<u>%</u>
A.I.D. Loan	2,200,000	1,800,000	4,000,000	59
G.O.P.	--	2,800,000	2,800,000	41
Total	2,200,000	4,600,000	6,800,000	100

4. BORROWER AND A.I.D. CONTRIBUTIONS: G.O.P. will be required to disburse its own funds for local costs concomitantly with A.I.D. funds for the same type of costs. Appropriate sections are to be incorporated into the Loan Agreement to require that each disbursement for local cost items, except for land, which is the sole responsibility of Borrower, be made by both A.I.D. and the Borrower in the proportion of their respective contributions to local cost financing. The proportion will be 2/5 (40%) for A.I.D. and 3/5 (60%) for the G.O.P.

5. BACKGROUND: The agricultural sector provides employment for about one-half of the country's population. It contributes one-fifth of the gross domestic product and since 1960 the aggregate output of the sector has averaged an annual growth rate of 6.2 percent. Exports of agricultural products have increased by 135%, but this is heavily influenced by increases in banana and fisheries exports. Production for domestic consumption has barely kept pace with population growth, and such increase results almost entirely from increases in cultivated land area of additional livestock units rather than from improvements in technology.

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In terms of producer productivity there is a growing disparity between the large majority of farmers - subsistence farmers - and the small minority which is made up of commercial farmers. The majority must be taken into account when the future agricultural development is taken into account. Additional production based on further land expansion is limited; substantial output increases will of necessity have to be achieved by technological improvements.

In 1964, G.O.P. began working with its first A.I.D. loan for agricultural development - 525-L-010 - (See Annex II, Exhibit 4) and it developed extension centers in six priority areas, initiating, as well, pure seed, farm mechanization, and livestock credit programs. The present loan contemplates the continuation and expansion of some of the activities of the first loan and the initiation of some new activities.

6. PROJECT DESCRIPTION: The Project is made up of 5 principal components, each of which has varying number of activities as follows:

1. Technological Development Support

- Construction, equipment and personnel for six new priority areas.
- Technical assistance and equipment for small-scale pilot-type irrigation systems.
- Expansion of the improved seeds program.
- Expansion of the machinery rental program.
- Construction, equipment and personnel for an animal disease control laboratory.
- U.S. technical assistance in research and extension.

2. Technical Education

- Construction, equipment and personnel to expand and improve the National School of Agriculture.
- Expansion to double the adult training facilities for short-term extension courses.
- U.S. and 3rd country training scholarships to

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provide specialty and graduate training not available in Panama.

3. Marketing Improvement

- U.S. technical assistance for the development and implementation of programs of price and market news, grades and standards, crop forecasts, and production cost studies.
- Equipment and personnel for an expansion of the MACI vegetable marketing program.

4. Production Credit

- Expansion of the supervised credit fund by one million dollars.
- U.S. technical assistance.

5. Policy and Program Development

- U.S. technical assistance for special studies, review and analysis relative to the improvement of sectoral policies and programs.

7. PURPOSE OF THE PROJECT: The purposes of this project will be to (1) facilitate and accelerate the adoption of modern technology among Panama's small and marginal agricultural producers and (2) to strengthen the knowledge base and the capability of the related GOP agencies for evaluating and formulating improved policies and programs for further development of the sector.

8. PROJECT IN USAID PROGRAM: Among the USAID's country program development objectives, the one of growth and development in the agricultural sector is considered to be of the highest priority. This emphasis results from a recognition that agriculture provides the primary livelihood for approximately 50 percent of the population and that in the absence of sufficient employment opportunities in the urban areas a realistic policy requires dealing with the rural population in its present environment. This program complements the USAID efforts in the urban areas by seeking to make the rural areas more attractive in the hope that migration to urban areas will be reduced.

9. ALTERNATIVE SOURCE OF FINANCING: The IBRD and the Export-Import Bank have advised A.I.D. in writing (Annex II, Exhibit I) that they do not have interest in financing this project. U.S. private institutions would not be interested in lending at terms required by the program. On IDB also indicated that they were not interested in this loan.

10. ISSUES: (See SECTION VIII).

11. STATUTORY CRITERIA: All statutory criteria have been or will be met. (See Annex I).

12. RECOMMENDATIONS: Authorization of a loan to the Government of Panama for an amount not to exceed \$4,000,000 subject to the following terms and conditions:

1. Interest terms and repayment

Interest on the disbursed balance 2% during grace period

Grace period 10 years

Amortization 30 years

2. Major Conditions (See SECTION IX)

13. LOAN PROJECT COMMITTEE:

Rural Development Officer: Thomas O. Stephens, - USAID/Panama

Capital Development Officer: John Banville - USAID/Panama

Engineer: Charles Stevens - USAID/Panama

Human Resources Officer: Charles Briggs - USAID/Panama

Economic Officer: Martin Dagata - USAID/Panama

Controller: Reyes Herrera - USAID/Panama

Technical Advisors:

Carroll Berry - USAID/La Paz

Richard Hall - USAID/La Paz

Regional Legal Counsel - USAID/Dogoth

SECTION I History and Background of the Project

A. A Brief Overview of the Sector

Panama's agricultural sector provides employment for almost one-half of the country's population. It contributes one-fifth of the gross domestic product and while the sector's contribution as a percent of the total GDP has been falling about 3/4 of 1% per year due to a more rapid expansion in the other sectors, the aggregate output of the agricultural sector since 1960 has averaged an annual growth rate of 6.2% and exports of agricultural products have increased by 135%.

The demand for agricultural products on the domestic market is strong, commercial credit for production has been readily available for selected risks, an active price support program has served to significantly stimulate production in the basic food crops of rice and corn and the GOP since 1963 has actively sought to increase its services to and orient its basic policies toward an increase in the output of the sector.

Gross output figures, however, tend to hide the facts that this overall performance has been heavily influenced by increases in the production of bananas and fishery products for export, that production by the sector for domestic consumption has barely kept pace with population growth, and that these latter increases have resulted almost entirely from increases in land area under cultivation or additional livestock units rather than improvements in technology.

B. Statement of the Problem

As noted above, there is a generally favorable environment for growth in the agricultural sector. The vast majority of Panama's farmers and livestock producers, however, do not possess the management skills, employ the appropriate cultivation or husbandry practices, or utilize the modern inputs of improved seed, fertilizer, pesticides, and machinery to a sufficient degree to reap the benefits of these favorable growth and expansion

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factors. Instead, they remain little affected by the existence or the creation of these production incentives and the gap between themselves and the thin line of efficient operators who are responding to these factors continues to grow in a manner comparable to the growing disparity between the extremes of the more-developed and lesser-developed nations.

This growing disparity in terms of producer productivity may be considered a natural result of technological development, but the disproportionate numbers of producers in Panama who occupy the respective positions as efficient or inefficient producers - or as commercial or subsistence farmers - are such that seriously prejudice the balanced growth of the sector consistent with desirable economic and social goals. The impact of this disparity, despite dramatic yield increases among some of the more efficient producers, is saliently demonstrated by the national average yields which in most basic crops reveal a trend of declining productivity.

C. The purpose of this Project

The future agricultural development of Panama and its contribution to national economic and social objectives must be based on a broad rural technological transformation within a framework of government policies and related programs. Additional production based on further land expansion is limited and in the not too distant future substantial output increases will of necessity have to result from technological improvements.

The agricultural sector is not fully prepared to accelerate the required transformation, either in the sector itself or in terms of the knowledge base required to devise the most desirable policies and programs to facilitate this transformation. Thus the purpose of this project will be (1) to facilitate and accelerate the adoption of modern technology among Panama's small and marginal agricultural producers and (2) to strengthen the knowledge

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base and the capability of the related GOP agencies for evaluating and formulating improved policies and programs for further development of the sector.

D. Origin of the Project

This project has evolved from a GOP proposal for USAID assistance to help finance the expansion of extension services and related programs of the Ministry of Agriculture, Commerce and Industries (MACI) into a second series of six new priority areas. The initial proposal, formalized in the Minister of Agriculture's letter of March 8, 1967 to the USAID Director, was subsequently reviewed and modified by a committee of the National Planning Office, MACI, and the USAID who were jointly involved in a series of reviews on trends of the sector and problems limiting its orderly and appropriate development process. These modifications resulted in a de-emphasis of the priority development area concept as a series of concentrated, self-contained development areas to a broader sectoral approach which still provides for an intensification of extension efforts in the priority areas. Consideration was also given to the possibility of expanding the MACI proposal into a sector loan. TDY assistance from AID/W and a further review of the sector followed. A considerable lack of data, particularly that needed to evaluate current policies, which would require special studies and additional time precluded the sector loan, but dictated the advisability of including a related special studies component in this project as part of an effort designed to strengthen agricultural planning capabilities.

E. Relationships of the Project to the USAID Program

The growth and development of Panama's agricultural sector is considered to be of the highest priority among the USAID's country program development objectives. This emphasis results principally from the recognition that agriculture provides the primary livelihood for approximately 50 percent of Panama's population

and contributes only 20 percent to GDP with all the implications that follow; and that wide-spread practices of traditional agriculture seriously limit the sector's contribution to the country's development.

In addition, the non-agricultural sectors, despite encouraging growth trends, are limited in their ability to absorb job seekers from the rural areas. With an annual population growth rate of 3.3 percent and a continuing heavy migration to urban areas, policy and programs must focus on the problems that motivate migration as well as on those problems which migration generates and aggravates in the urban centers.

USAID strategy has focused on the need to improve living conditions and to raise income in rural Panama, and to develop the potential of the agricultural sector through the provision of rural education facilities (Rural School Construction Loan) and rural health facilities (PUMAR); through the development of cooperatives, credit unions, and numerous rural community development activities; through an Agricultural Development Loan providing needed inputs for six "priority rural development areas" (this loan is discussed in detail elsewhere in this paper); and through provision for a natural resources survey.

Focusing on Panama's small and medium size farmers, the proposed loan will strengthen the agricultural sector's capacity to absorb capital; improve its responsiveness to market incentives, and strengthen the public sector's ability to provide services and to formulate policy. By accomplishing these ends, it will help to provide for: (1) a decent and equitable livelihood for a broader segment of the rural population; (2) an adequate supply, at more reasonable prices, of basic foodstuffs for urban consumption; (3) an increasing market for Panama's growing urban industrial sector; and (4) the development of exports of those products which can compete on the world market and provide increased export earnings.

F. Borrower Concurrence

While the Programming Office of the Ministry of Agriculture, Commerce and Industries (MACI) was primarily responsible for the development of this loan proposal, the National Planning Office of the Presidency was a full participant in the frequent reviews and modifications effected in the proposal, has accorded this

project a high priority within its development program and is planning sufficient funds to implement the project.

The preliminary proposal and request for the project from the Ministry of Agriculture, as well as the Minister's concurrences on subsequent modifications, are on file with the USAID.

G. Country Team Views

The Country Team, fully cognizant of the need to emphasize and accelerate Panama's rural area development, considers this project as an integral measure of a strategy designed to alleviate urban pressures and tensions, as a balance to the recent heavy inputs to the urban areas and as a means of working toward a more nearly equitable income distribution in Panama, and strongly recommends its early approval. Such approval would also be considered desirable by permitting initiation of the project's implementation early in the new Panamanian government administration.

SECTION II Borrower and Executing Agency**A. Borrower**

The Government of Panama (GOP) is the borrower of this loan.

B. Executing Agency

Loan proceeds will be made available to the Ministry of Agriculture, Commerce and Industries (MACI), which will be the implementing agency for this project. The agricultural credit portion of this loan will also be administered by MACI, with the GOP agricultural credit agency, the Instituto de Fomento Económico (IFE), acting as its financial agent.

C. The Ministry of Agriculture, Commerce and Industries

A government agency to deal with the problems of agriculture was established over fifty years ago as a section of the Secretariat of Development. Subsequent organizational changes were effected as increased recognition was given to the growing importance of agriculture and in 1940 a new cabinet level department was created with the primary responsibility for developments in the field of agriculture. The original name of Secretariat of Agriculture and Commerce (created by law of September 1940) was changed a year later to Ministry of Agriculture and Commerce. The present name, Ministry of Agriculture, Commerce and Industries was adopted by Legislative Decree in June 1945.

The principal purpose of the Ministry of Agriculture, Commerce and Industries, as dictated by legislative decree, involves the achievement of two objectives: (a) the greatest possible welfare of the farming population and the most rapid social and economic development of the agricultural sector to levels comparable with other sectors of the economy; and (b) the maximum use of natural resources to a level compatible with their adequate conservation.

Prior to 1964, MACI remained a strongly centralized agency with approximately 70% of its personnel assigned to the central office in Panama. In 1964, a decentralization of MACI's agricultural operations resulted in the division of Panama into six regional organizations, each with its own regional director and technical staff. A comparable reorganization of the National Agricultural Institute

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(research and experimental center) at Divisa with its companion National Agricultural School created the equivalent of a seventh regional organization and in the period of approximately one year the percentages of MACI personnel in the field as contrasted to those in the central offices was completely reversed. These organizational changes have greatly increased the direct confrontation by MACI with the daily operational problems of the agricultural sector and stimulated a challenge to professional capabilities of its technical and administrative staff that has been well received. The administration and implementation of the previous Agricultural Development Loan (525-L-010) by MACI was considered very good. A.I.D. Audit Report 68-6 of November 30, 1967 is quoted as follows: "The spirit of the Alliance caught by both USAID and MACI personnel generated a warm cooperative effort. As a result, overall administration has been quite satisfactory. Conformance with the provision of the loan agreement and the applicable AID directives has generally been good. The resultant accomplishments, although not without problem areas, have been quite successful."

Organizational charts of the Executive Branch of the GOP and of the Ministry of Agriculture, Commerce and Industry, along with a list of the top staff members of the Ministry are attached. (See Annex II Exhibits 10, 13, & 14)

D. Institute of Economic Development

The Instituto de Fomento Económico (IFE) is an autonomous agency of the GOP created in 1953. While authorized by legislation to pursue a variety of development activities, its most important current activities are the granting of loans to farmers (it is the official agricultural credit agency of the GOP) and the administration of the agricultural price support program. Its administrative budget is derived from interest and direct support from the GOP. Similarly, a limited amount of its credit funds are supplied by the GOP but the bulk, presently totaling \$5.4 million, have been secured in loans from the IDB. Additionally, it is also acting as the financial agent for \$965,000 in MACI loan funds of the previous AID Agricultural Development Project 525-L-010.

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The Minister of Agriculture is the chairman of the governing body of IFE and IFE will again be designated as the financial agent for the supervised credit funds of this new loan. While IFE's participation has been satisfactory, in light of an expanded program and the need to review, analyze, and plan a continuing production credit program for Panama's small subsistence farmers, considerable inputs of technical assistance related to the supervised credit component of this new proposal are planned.

SECTION III Project Description

This project is primarily one of strengthening Panama's ability to provide technical assistance to farmers, improving the capability of the farmers to absorb new technology, and providing some of the capital required to furnish the additional related inputs. More specifically, it has been designed to facilitate and accelerate the adoption of modern technology among Panama's small or marginal agricultural producers and to do so, within an improving framework of policies and programs most compatible with the economic and social goals of the sector. At the farm level, the quality of this technical assistance as well as the extent of its coverage, its manner of delivery, the receptivity of the farmer as well as his capacity to secure capital inputs, and finally the marketing system, all play a significant role in accomplishing the purposes of this project and dictate, for Panama the following project components and sub-components:

1. Technological Development Support

- Construction, equipment and personnel for six new priority areas.
- Technical assistance and equipment for small-scale pilot type irrigation systems.
- Expansion of the Improved seeds program.
- Expansion of the machinery rental program.
- Construction, equipment and personnel for an animal disease control laboratory.
- U.S. technical assistance in research and extension.

2. Technical Education

- Construction, equipment and personnel to expand and improve the National School of Agriculture.
- Expansion to double the adult training facilities for short-term extension courses.
- U.S. and 3rd country training scholarships to provide specialty and graduate training not

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available in Panama.

3. Marketing Improvement

- U.S. technical assistance for the development and implementation of programs of price and market news, grades and standards, crop forecasts, and production cost studies.
- Equipment and personnel for an expansion of the MACI vegetable marketing program.

4. Production Credit

- Expansion of the supervised credit fund by one million dollars.
- U.S. technical assistance.

5. Policy and Program Development

- U.S. technical assistance for special studies, review and analysis relative to the improvement of sectoral policies and programs.

The U.S. technical assistance, training, special studies and the new and expanded programs will be coordinated by MACI in their development and implementation to achieve the maximum institution-building effect.

The basic components of this project have general application to the full geographic extension of Panama's agricultural sector. A map and additional information on the six new priority areas receiving special extension support facilities and services is noted in Annex II, Exhibit 3.

TECHNOLOGICAL DEVELOPMENT SUPPORT

Principal among the several requirements to accelerate the adoption of modern technology among Panama's small farmers is the necessity to reach and involve a greater number of these producers in the field activities of the MACI extension programs and to improve both the quantity and quality of the research and experiment activities which are the source of data for extension efforts. Toward this end, the following activities are planned:

1. **Expansion of Extension Facilities**

The purpose of this activity is to provide additional facilities to support the Ministry of Agriculture, the Instituto de Fomento Económico, and the Agrarian Reform Agency and their programs in six new geographic areas in Rural Panama. These areas are identified as Hato del Volcán, Llanos de Coclé, Mamoni, La Mesa, Valle Rico, and Los Pozos. (See Map Annex 11, Exhibit 3)

The 1966 reorganization of the Ministry of Agriculture plus support through AID Loan 525-L-010 has created an effectively functioning Agricultural Extension Service. This reorganization centered around the division of Panama into six geographic regions, with a priority area established in in each of these regions. The GOP has now selected six new priority areas, these are contiguous to the original six priority areas, for the purpose of providing the necessary government inputs for continuing development process in the undeveloped agricultural sectors of the country. This does not mean that the total inputs of this program will be limited exclusively to the six new priority areas. This project differs in its approach from the previous Loan (525-L-010) in that less emphasis will be placed on the development of priority areas as such. Many of the facilities and technical staff established in the original project will support additional development efforts in the new priority areas with modest additional inputs. An important aspect of the original project was the development of a staff of technicians which will be used as a nucleus for supporting and providing practical training for the expanded staff.

These facilities are proposed to assist the small subsistence farmer to become part of the social and economic life of Panama by providing the necessary technical advice and credit inputs.

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The physical facilities provided by this activity will promote group action by rural people through supplying facilities that can and will be used for meetings of farmers, farmer associations, water district organizations, cooperatives and pre-cooperatives, and local government groups. This project is necessary to continue the rural development process and to expand that group of farmers who are providing the food and agricultural raw materials for Panama's development. This development process in the rural sector is necessary to prevent the wasteful and archaic method of opening available lands rather than improved techniques of production; and will assist in stabilizing the rural population rather than encourage migration to the urban centers.

The three major activities to be implemented in this activity are construction, procurement and training.

The construction consists of 5 regional centers and 23 new agricultural extension agencies. The Engineering Division of the Ministry of Agriculture will be responsible for the development of building plans and specifications and the supervision of construction.

The project management will be responsible for the preparation of bid documents, advertising for bids, and the awarding of construction contracts.

Construction of buildings will be implemented by priority area according to the following schedule:

- Area I - Hato del Volcán - The 8th month after the signing of the Loan Agreement.
- Area II - Llanos de Coclé - The 12th month after the signing of the Loan Agreement.
- Area III - Mamóní - The 16th month after the signing of the Loan Agreement.

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- Area IV - La Mesa** - The 20th month after the signing of the Loan Agreement.
- Area V - Valle Rico** - The 24th month after the signing of the Loan Agreement.
- Area VI - Los Pozos** - The 28th month after the signing of the Loan Agreement.

Experience gained from AID Loan 525-L-010 indicated that approximately eight months after the signing of the Loan Agreement will be needed to meet conditions precedent, complete the necessary plans and specifications, solicit bids and make the contract awards for the initial unit of construction. Also, the spacing of construction implementation at four month intervals provides adequate time for bidding procedures and the award of construction contracts in an organized sequential manner.

Basic construction plans and specifications have been prepared and previous experience indicates that the Engineering Division of the Ministry of Agriculture has the capability to adapt these building plans to the selected building sites and to supervise construction.

Procurement for this activity will include vehicles, furniture, equipment and tools to equip the above building facilities. The project management of the Ministry of Agriculture will be responsible for the development of the specifications of this equipment, advertising for bids and the award of procurement contracts. Bidding schedules will conform to construction schedules and delivery schedules will be coordinated with construction completion dates. Excess property sources will be investigated for possible supply of project requirements before new item procurement procedures are initiated.

The total cost of this activity is \$1,714,000. The total A.I.D. input is \$750,000 which is for the construction and equipping of extension facilities. The total GOP input is \$964,000

which is for construction, additional operation and maintenance, land and additional engineering services for these facilities.

2. Small Scale Pilot Irrigation Projects

The purpose of this activity is to introduce and demonstrate the value of small scale irrigation projects to develop the production potential of low income farmers who are occupying small parcels of irrigable land by the construction of ten small scale irrigation projects. Additionally, this activity will encourage these same farmers to work together on this and other joint efforts, such as production and marketing cooperatives.

There are many small farmers living along the banks of the numerous rivers in Panama whose production potential is limited by seasonal rainfall. Their production capacity could be doubled by the use of irrigation which would permit two crops per year. Crops that can be produced twice yearly in Panama include vegetables, corn and rice. Unit production would benefit from the timely application of water. Markets are available. Irrigation water is available from rivers and streams which flow the year around. An underground irrigation water study which is a part of an AID loan financed project (Rural Cadaster and Natural Resources Survey, AID Loan No. 525-L-007) is nearing completion. An irrigation feasibility study being carried out by the United Nations and a British study team have identified a number of small feasible irrigation projects.

These small irrigation projects are to be located in the Central Provinces of Panama, where the annual dry season is the most severe, where the majority of low income farmers on small parcels of land now reside, where irrigation water in rivers and streams is readily available, soils are suitable and where available markets now exist for fruits, vegetables, corn and rice.

Irrigation water for the most part will be provided by constructing small diversion dams in existing streams and either lifting the water by pumps from the reservoir created by the diversion dam or constructing flumes for gravity flow that will carry water into canals that will form a gravity-flood type irrigation system.

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The ten systems to be established by this activity are expected to benefit 400 farmers and will be located on the Rio Grande and Rio Chico in the Llanos de Coclé priority area and on the La Villa, Guararé and Mensabé rivers in the Azuero Península and within or contiguous to the priority areas of Valle Rico and Los Pozos. Two demonstration irrigation projects of this type are now in operation, one located on the Rio Grande river and the other located on the Guararé river.

Panama has established a national irrigation commission composed of representatives from both the public and private sector. This commission is responsible for directing and coordinating the use of water for irrigation throughout Panama. A small technical staff and the Engineering Division of the Ministry of Agriculture supports this commission. This commission drafted Panama's first water-right legislation, and the National Assembly enacted this legislation in 1967.

The formation of a water district organization will establish a sound base for further group action through cooperative development. An ideal situation will be created for agricultural producer and marketing cooperatives. The Cooperative Section of the Ministry of Agriculture and AID financed Cooperative Technical Assistance (CLUSA) will promote the development of cooperatives and provide the necessary education and administration technology.

The GOP will provide through the use of loan funds the basic facilities for each of these irrigation projects. These facilities will include diversion dams, pumps, and in some cases the principal canals. A water district organization composed of the farmers involved, which will operate independently will be formed in connection with each project. The water district organization plus the individual farmers will be responsible for the construction of secondary and additional canals to carry the water to individual parcels of land. The individual farmers will also construct the project drainage. Irrigation water will be sold through the water district organization to the individual user. Simple metering devices and time schedules will be used to determine water charges. Funds accumulated through the sale of irrigation water will be used to operate, maintain and expand irrigation facilities.

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The Engineering Division of the Ministry of Agriculture will be responsible for the design, plans and specifications and construction supervision for these small irrigation projects. Plans and specific project locations will be coordinated with the National Irrigation Commission. The project management of the Ministry will be responsible for contracting and procurement procedures. It is planned to initiate implementation of this activity the fourth month after the signing of the loan agreement and start new projects at three month intervals thereafter. Procurement will be coordinated with construction schedules.

The total cost of this activity is \$530,000. The total AID input is \$350,000 which is for the construction and equipping of these pilot irrigation projects. The total GOP input is \$60,000 which is for start up costs and additional engineering services for these facilities. Additionally \$120,000 of farm labor value will be expended by the 400 participating farmers.

3. Expansion of the Seed Improvement Program

This activity is designed to permit the Ministry of Agriculture to double the volume of improved seeds being handled in a successful on-going program which was initiated under the previous 010 Agricultural Development Loan.

With other conditions remaining constant, probably no single new input, within the framework of traditional agriculture, results in more rapid increase in productivity than that resulting from the use of improved seeds. Prior to 1967, Panama did not have a domestic supply of improved seeds and almost all of its farmers saved a sufficient supply of seed for the ensuing planting season from each successive harvest.

Seed improvement is a basic part of the USAID/MACI program of technological improvements to increase productivity and a modest seed improvement program for Panama was initiated in 1966 with the help of technical assistance from Mississippi State University under AID-Mississippi State University Agreement AID-W-607.

Seed processing and storage facilities were then established at Divisa as a part of the 010 Loan Project concurrent with the training of the necessary Panamanian personnel, and this program

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became fully operational in 1967. The pure seed of adopted crop varieties are dried, cleaned, classified, treated with appropriate pesticides and fungicides, sacked and stored. This is part of a total program which calls for selection, development, evaluation of varieties, and production of the foundation seed. The Divisa center also selects contract producers of the various seed varieties and exercises a strict control on seed purity and quality which these growers multiply under contract.

In 1967 the Divisa Seed Improvement Center processed and delivered 900,000 pounds of eight varieties of rice, 115,000 pounds of two varieties of corn and 25,000 pounds of three varieties of beans and cowpeas. The seed was produced under contracts with ten rice, twelve corn and seven bean seed producers. In 1968, for the period January thru April 5 the production record has been as follows: 1,000,000 pounds of eleven varieties of rice; 175,000 pounds of hybrid corn and 125,000 pounds of beans. The response to this program has exceeded initial expectation and, to meet this need, an expansion of the program is necessary. The possibility of such a development was fully considered in the planning of the facilities at Divisa and, thus, while the processing equipment is capable of handling an increased volume of seed, additional storage facilities are the required addition to the system to permit a larger annual volume. These additional facilities will permit the handling, at the proper temperature and humidity, of a larger volume of seed prior and subsequent to the actual processing activities of cleaning, classifying, treating and packaging. This expansion follows the recommendations of the Mississippi State consultants and it is planned that the same consultants will be recalled in early 1970 to again review the overall program and assess the future demand for improved seeds in Panama.

Since the province of Chiriqui, located approximately 175 miles west of Divisa, is a principal area for both the production and demand of the seeds in this program, it is planned to construct an intermediate storage facility in that area at the regional headquarters of MACI as well as an expansion onto the storage facilities at the Divisa plant. In view of the urgency of this expansion, it is planned that the construction and equipment contracts on these facilities will be made as early as possible after the conditions precedent have been met in order that an

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increase in the volume of seeds for the 1969 planting season can be effected.

This program, since its inception in 1966, has considered assistance to small farmers to be a primary objective. The first distribution is, therefore, made locally to the MACI regional offices. Here the orders from the smaller agriculturalists, generally developed by the field extension agents, are first distributed and then the requests of the larger producers are processed.

The Engineering Division of the Ministry of Agriculture will be responsible for providing the plans, specifications and the supervision of construction. The project management of the Ministry will be responsible for contracting and procurement procedures.

The total cost of this activity is \$125,000. The total AID input is \$100,000 which is to finance construction of seed storage facilities. The total GOP input is \$25,000 which is to finance land, additional operations and maintenance.

4. Machinery Rental Program

The purpose of this activity is to make available the necessary farm machinery to low income farmers to enable them to increase their production through the use of additional lands and improved cultivation practices. A second objective of this program is to demonstrate the feasibility of a farm machinery rental enterprise as a business.

Panama is now placing great emphasis on the use of physical inputs to increase yields on lands under cultivation. The use of farm machinery is rapidly expanding under Alliance for Progress programs. In rural areas, where a few years ago mechanization was completely unknown, there now exists an impressive number of tractors, plows, mechanical harvesters and the like. For example, a visit to the Penonomé area in 1962 revealed no evidence of the use of farm tractors. In 1966, during an agricultural fair in this same area, 79 privately owned tractors were exhibited in the parade. However, only the larger more affluent farmers have been able to acquire and utilize machinery to date. The increase

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in the use of farm machinery in Panama has been assisted by and is partially due to the establishment of U.S. farm machinery dealerships by the private sector. These dealers now have an adequate supply of spare parts and mechanical services necessary to maintain and operate farm machinery. However, the small low income farmers, at which this project is directed, do not have the necessary amount of land and financial resources to warrant the acquisition of farm machinery. For example, 55 percent of the farmers in Panama are now located on 12-1/2 acres or less (See Annex * Reuss Report). This activity will be closely related to the supervised credit portion of this loan project in that credit funds will be made available to low income farmers and groups of farmers for the acquisition of the services of the farm machinery rental program.

This activity will support U.S. industry and foster additionality by promoting increased sales of U.S. farm machinery through the demonstration of its utility. There are no tariff or duty restrictions on the importation of farm machinery into Panama. Best available information indicates that imports of farm machinery have tripled since the initiation of the AID Loan No. 525-L-010 in late 1964. A significant portion of this increase can be attributed to the demonstration effect of this program.

A.I.D. Loan No. 525-L-010 for Agricultural Development established one pilot farm machinery rental center located at the National Agricultural Institute at Divisa. This center provides for farm machinery and the facilities to operate, store and maintain this machinery. The farm machinery component acquired for this pilot center consisted of: two bulldozer crawler type tractors, four farm size wheel type tractors with farm implements, two rice combines, one set of hay making equipment including mower, rake and baler, two grain drills, two rotary mowers, and two forage choppers. The operating facilities include a building for storage and to house a mechanical repair shop plus tools and equipment for the shop. Also, the GOP from their own resources and AID through excess property provided equipment to transport the farm machinery; this transportation equipment consisted of three trucks with low-bed trailers.

The equipment in use at Divisa has demonstrated the value of rented machinery to farmers with small farms in the area.

* Annex II, Exhibit II

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Rental rates, established at nominal levels, have encouraged almost maximum use of this equipment. At times, during the planting and harvest seasons, the center has had problems in meeting the demand for the equipment. No additional equipment for this center is being ordered, nor are the rates being increased, because the purpose of the project has been (1) to demonstrate the necessity of using machinery to improve the productivity of small farms and (2) to create a market (farmers) demand for custom rental equipment to be supplied by private persons in the area.

A similar opportunity to demonstrate machinery and equipment in an area of small farmers exists at Las Tablas in the Province of Los Santos and Santiago in the Province of Veraguas. These centers will be patterned after and operated jointly with the center now operating at Divisa. Machinery to support these new centers will include, but not be limited to: four small crawler tractors, eight farm wheel type tractors with implements, two sets of hay making equipment, four grain drills, four rotary mowers, and four forage choppers. A shed type building will be constructed at each site for the storage of implements and to house maintenance facilities.

This activity will emphasize the provision of equipment to farmers groups and cooperatives in order to promote group action among the individual farmers and to improve the scheduling of available equipment. Also, the feasibility and administration of a farm machinery operation will be demonstrated so that eventually farmer cooperatives can make these services available.

This activity will be implemented the fourth month after the loan agreement is signed. The Engineering Department of the Ministry of Agriculture will be responsible for the preparation of equipment specifications, building plans and supervise construction. The project management of the Ministry will be responsible for the preparation of bid documents, advertising and the award of contracts for both construction and procurement. The staff of the machinery center now operating at Divisa will be expanded to operate the new center. Equipment with operator will be rented to small farmers at the established rate for the particular piece of equipment. Machinery rental activities will be coordinated with the agricultural extension service.

The total cost of this activity is \$450,000. The total AID input is \$350,000 to finance procurement and construction costs. The total GOP input is \$100,000 to finance initial operation, maintenance and land costs.

5. Technical Assistance - Research and Extension

The purpose of this activity is to analyze the existing agricultural research and extension services and formulate and implement new policies and plans that will improve these services. A second objective is to meld these services in such a manner that timely research information can be disseminated through the extension service for application by the farmers.

It is generally recognized that the direct transfer of materials and practices from the temperate zone agriculture in the United States is possible only to a limited extent and it is increasingly apparent that the programs of research must be tested within the host country to ensure the development of practices that may be adopted without undue risk by local farmers.

There is a Research Section within the Ministry of Agriculture and eight experiment stations have been established throughout Panama. The top personnel are considered well-qualified. However, the section as a whole is understaffed and there is a pressing need for a re-examination of the existing organization. For example, the need to maintain eight separate stations is questionable since soils and climatic conditions in the major agricultural areas are similar. On the other hand, more and improved applied research activities on basic food crops and selected tropical crops for exportation are required in connection with the extension service activities.

Historically, research efforts have been carried out by subject-matter specialists, both foreign and local, and have been oriented towards increased production of specific commodities without sufficient regard to markets, demand, supplies and the best use of available resources.

Also, Agricultural Research activities in the past have not had the directional guidance of an agricultural policy. Much of the research that has been accomplished in Panama

has not responded to the technological needs of the extension service because many of the research results have not been properly analyzed, published and distributed to the extension service for application through farmer education.

The name most widely given to farmer education is "extension education". Extension education normally uses a distinctive group of teaching methods which include conversations during farm and home visits, method demonstrations, result demonstrations, group meetings, farm tours, exhibits and fairs. One of the major roles of the extension worker is to take the results of agricultural research to the farmers.

Panama's extension service now has a total of 40 agricultural extension agencies staffed with approximately 200 extension agents, home demonstration agents, rural youth agents and subject matter specialists. Fourteen additional extension agencies are planned for the next three years. By 1970 there will be one agricultural extension agent for every 2,200 farmers. While this is far too great a number of farmers to be covered by one extension agent it is an indication of Panama's effort to provide services to farmers. Panama is promoting the use of group action to make maximum use of research information and extension services.

No specific technical assistance in agricultural research and agricultural extension has been provided to Panama since early 1963 when the U.S. supported Agricultural Service (SICAP) was phased out.

This activity propose to provide three man-years of technical assistance for the purpose of: (1) Reviewing Panama's research and extension requirements, programs, staffing, facilities and objectives; (2) Designing policies and plans for the improvement of research and extension; and (3) assist with the implementation of these policies and plans.

It is planned to make contractual arrangements with a U.S. University or the USDA to provide this technical assistance. It is contemplated that a number of technicians with different skills will be necessary to accomplish the objectives and that a single institution which will supply and backstop these technicians

will insure the necessary continuity and coordination for a complete program.

The project management of the Ministry of Agriculture will make the contractual arrangements for this technical assistance. The Director of Research and the Director of the National Extension Service will coordinate the efforts of the contract technicians in each of their speciality fields.

It is planned to implement this component of the loan activity the fifth month after the signing of the loan agreement.

The total cost of this activity is \$220,000. The total AID input is \$100,000 to finance U.S. Technical Assistance. The total GOP input is \$120,000 to finance logistic and other support costs.

6. Veterinary Laboratory

The purpose of this activity is to support the livestock industry of Panama by providing an adequate veterinary laboratory facility.

Although the agricultural sector only produces 20 percent of the gross domestic product, it still contributes more to the economy than any other single sector. Within the agricultural sector the livestock industry, now valued at approximately \$300,000,000 is by far the largest single component. Modern, expanded veterinary support facilities are needed to protect this industry.

Panama has made considerable progress through regulatory veterinary medicine in controlling animal diseases. For example, the incidence of tuberculosis and brucellosis is less than 2% in the cattle herds in Panama. Panama is free from hoof and mouth disease while in its neighboring country Colombia and the rest of South America this disease is prevalent and out of control. A modern, efficient, properly staffed animal disease diagnostic laboratory is a necessary component of an animal disease control program.

Panama now has a small, outdated central veterinary

laboratory facility poorly located within the city of Panama. This facility is adequately staffed with technical personnel consisting of three veterinarians and four laboratory technicians. Additional technical support is provided by the U.S. Army Veterinary Pathologist assigned to the Military Assistance Group in Panama. Also there are eleven full time GOP veterinarians performing regulatory functions, such as, tuberculosis and brucellosis eradication campaigns meat inspection, slaughter facility sanitation control and transit animal inspection within the regional administration framework of the Ministry of Agriculture. It is also important to note that there are 53 veterinarians in private practice in Panama at this time.

The economic justification of this facility in the agriculture assistance program for increased production of crops and livestock is that it is a necessary capital improvement to protect investment loans from catastrophic losses that can accrue to cattle producers and the domestic meat marketing system that an outbreak in disease, that is not diagnosed quickly, can cause. A prime example of this is an outbreak of aftosa in Great Britain that had far reaching effects not only on that country, but countries that supply animals and meat to Great Britain that are possible sources of hoof and mouth disease. Panama cannot hope to become a substantial exporter of meat without adequate means to control and diagnose animal disease.

This component proposes to construct, equip and staff a modern veterinary laboratory facility located in the outskirts of the city of Panama near the Tocumen International Airport.

This facility would have three principal functions. These are:

- (1) Diagnostic - to serve as the central diagnostic veterinary laboratory for the country.
- (2) Research - to study those problems of animal disease which are causing losses to livestock producers and develop control and eradication programs.
- (3) Inspection and Quarantine - serve as a center for quarantine for all animals imported into Panama.

This laboratory is needed to examine specimens to determine what animal diseases found in other sections of the country and diseases discovered in slaughtering facilities that service the two major consuming areas, Colon and Panama City.

The location is convenient also for quarantining new animals arriving in Panama. Panama does not have hoof and mouth disease (aftosa) that is rampant in some countries in Latin America. The current investment in this industry must be protected from diseases by quarantine and rapid diagnosis of disease that this facility will provide.

Panama now has, both in the public and private sectors, an adequate number of veterinarians, but inadequate facilities for diagnosis of disease and control of quality of imports of animals to meet the growing needs of this vital industry that was successfully expanded by previous programs.

An additional benefit of this new facility will be its proximity to the School of Agriculture of the University of Panama. Students in their courses in agriculture will utilize these facilities rather than duplicating facilities in this area for teaching and research.

The Engineering Division of the Ministry of Agriculture will be responsible for the plans and specifications for this activity. These plans and specifications and construction supervision are now being developed in coordination with the Veterinary Division of the Ministry and with the advice of the U.S. Military Veterinary Advisor attached to the Military Assistance Group in Panama. It is planned to implement this activity the sixth month after the signing of the Loan Agreement.

The project management of the Ministry will be responsible for bidding and procurement procedures.

The total cost of this activity is \$225,000. The total AID input is \$155,000 to finance the construction of new Veterinary Laboratory facilities and the procurement of additional laboratory equipment. The total GOP input is \$70,000 to finance operation, land and initial maintenance costs.

TECHNICAL EDUCATION

Improved technology utilizing capital investment inputs must be accompanied by an increase in the capability of the farmer to understand and utilize this new knowledge in his decision making process on the farm. Additional extension agents will be required to staff the expanded MACI services and specialized training, not available in Panama, must be provided in the advanced techniques required to modernize Panama's agriculture. Towards these objectives the following activities are planned.

A. Adult Education Extension Centers

The basic objective of this sub-component is to double the capacity of an on-going and successful adult education-extension program of MACI by constructing and equipping two additional centers for the intensive short courses offered under the program. Additionally, it is also planned that these centers would serve as facilities for district or area meetings of farmer cooperatives or associations, the 4-S clubs, the National Panamanian Volunteers (Panama's Domestic Peace Corps and a part of the MACI organization), as well as other related groups.

The rapid acquisition of knowledge on the part of small farmers relative to improved technology, and particularly improved cultivation practices, is greatly facilitated by intensive short-courses directed by the research and extension personnel and the National Institute has been offering such courses in selected agricultural practices at Divisa since 1961. This program was initiated with an AID grant of \$36,000 to construct the basic facilities and MACI has staffed, maintained, and operated the program to date in a very successful manner. While many of the participants have returned for different courses year after year, an average of 800 persons per year have participated in the program and, 1,104 persons attended the various courses in 1967. This program is considered to be a vital part of the total agricultural extension effort. The present center is located on the grounds of the National Institute of Agriculture, MACI's central research and experiment station, which also is the location of the National Vocational School of Agriculture. Personnel from these two entities as well as technicians and extensionists from nearby regional offices make up the teaching staff for the various intensive short courses which are generally of one week duration.

The participants are selected by the extension agents, for the most part, who have been instructed to recommend the most progressive of the small farmers in their respective areas.

Those selected are usually the ones who adopt the new techniques to improve their own production and influence their neighbors in doing the same and thus create a multiplier effect. Class sizes average 30 participants.

With the assistance of this sub-component MACI will construct and equip two additional centers. The original center located at Divisa is in the center of Panama's most intensively developed agricultural area which extends over 400 miles from the Costa Rican border easterly to and slightly beyond the Panama Canal. One of the new centers will be located at David in the western area and the second at Capira in the eastern area to afford strategic coverage. Both of the new centers will be located on newly acquired land near the respective MACI regional headquarters to facilitate not only the administration of the new units, but also the provision of teaching staff as most of this personnel will be drawn on a part-time basis from the technicians attached to the respective regional offices.

The Director of the National Institute of Agriculture at Divisa will be responsible for the administration, coordination, planning and operation of this expanded program. Construction and equipping of the two new centers is scheduled to begin twelve months after conditions precedent of the loan agreement are met.

The Engineering Division of the Ministry of Agriculture will be responsible for providing the Plans, specifications and the supervision of construction. The project management of the Ministry will be responsible for contracting and procurement procedures.

The total cost of this activity is \$200,000. The total AID input is \$40,000 to finance the procurement of equipment. The total GOP input is \$160,000 to finance construction, additional operation and maintenance and land for two adult education centers.

B. Vocational Education

The objective of this sub-component is to nearly double the enrollment capacity and provide other physical facilities and equipment for improvement and expansion of the curriculum of Panama's only high school level vocational agriculture training institution and its basic source of extension agents, agricultural credit agents and middle-level agricultural technicians for the

private sector. This expansion would increase the normal enrollment capacity from 116 to 200. This institution, the National School of Agriculture, was established in 1940 at Divisa, located approximately 135 miles west of Panama in the center of the Republic's more intensively developed agricultural area. A year later it was combined with the MACI central research and experiment center, also located at Divisa, to form the National Institute of Agriculture (Instituto Nacional de Agricultura). In 1961 the Adult Education-Extension Program of short courses for farmers was added to the program of the National School of Agriculture and a third and fourth principal activity of INA were added with the implementation of the OIO Agricultural Development Loan Project of the Pilot Custom Farm Machinery and Improved Seeds Program. These activities are all strongly interrelated. Their operational functions within the coordinated program of INA are mutually complementary and result in an operational framework making a maximum use of Panama's limited professional personnel. In view of this close coordination, involving in various degrees, the sharing of certain facilities as well as personnel, it should be noted that, while most of the improvements contemplated within this sub-component are for the exclusive use of the National School of Agriculture, about one-third of the new improvements will also result in some related benefits to the other activities within the INA operation. An organizational chart of INA appears in Annex 11, Exhibit 15.

The National School of Agriculture (Escuela Nacional de Agricultura, ENA), provides a three-year course in basic agricultural studies comparable to that of a senior vocational high school in the United States. Its enrollment capacity was last expanded, with the assistance of an AID grant in 1962, to a planned capacity of 116 students. This enrollment was reached in 1965 and through an overcrowding of dormitory and dining facilities, for this boarding type school, it began the 1968 school year with 142 students. Its largest graduating class in history, totalling 39, graduated in December 1967 and with no further expansion it would be able to graduate an average of approximately 35 students per year.

A joint MACI/USAID review in 1967 of the requirements for secondary level or vocationally trained agricultural technicians in Panama for positions within the government service indicated an average annual requirement for the 1967-76 period of 50 per year. It was further determined that approximately 80 percent of this requirement, or 40 graduates per year, would be required from ENA. The private sector and higher studies are expected to absorb

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approximately one-third of ENA's graduates annually and a goal of 60-65 graduates annually for ENA was recommended. The expansion plans of this sub-component are designed to meet this goal and no further expansion in the enrollment capacity is anticipated for the next 7 to 8 years. The basic premises underlying this last determination were based on the rapidly increasing enrollment at the School of Agriculture at the University of Panama, which was established in 1959, and the fact that, as more University of Panama graduates become available, it would logically follow that many of the government service positions in agriculture would begin to be up-graded and result in slow but gradual decrease in the need for personnel of the vocationally trained level.

Construction and equipment related exclusively to expansion of the enrollment capacity of ENA to be financed from loan funds include:

Dormitories	\$150,000
Dining Facilities	100,000
Laundry Plant	50,000
Water System Improvements	25,000

In addition to those facilities noted above, which are related to enrollment capacity, the following new facilities are required for improvement and expansion of the ENA curriculum. More specifically, these facilities and the improved curriculum related thereto are in line with development trends and/or promotional goals in the Panama agricultural sector. Other curriculum improvements are being effected by ENA without the need for additional physical facilities. The last major curriculum improvement was effected in 1953-54 with assistance of the USAID sponsored University of Arkansas Mission. The present curriculum improvements have been planned by directorate of ENA, following a series of visits to other similar schools in Honduras, and El Salvador, and with the assistance of an agricultural education advisor from IICA, Turrialba, Costa Rica, requested on a special mission in 1967 by MACI. The USAID has reviewed the basic curriculum changes planned by ENA and is in accord with them.

In addition to the use of these facilities by ENA, they will also be utilized by the research and experiment personnel of INA

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and serve in a dual role for instructional as well as developmental purposes in the respective related technologies. These facilities are as follows:

Small Modern Creamery	\$52,000
Meats Laboratory	23,000

It is planned to implement this activity the eight month after the signing of the loan agreement.

The total cost of this activity is \$855,000. The total AID input is \$434,000 to finance the construction, equipping and engineering services of vocational education facilities. The total GOP input is \$421,000 to finance construction, operation, and maintenance of additional vocational education facilities.

C. Scholarships

The purpose of this part of the program is to provide training not available in Panama to supply qualified personnel to carry out the technical assistance aspects of the Agricultural Development Program.

Through a planned schedule additional technicians will be trained in those areas essential for carrying out the development loan program.

TABLE I - Agricultural Students in Panama - 1961-65

	<u>Total Students</u>	<u>University</u>	
		<u>Agri. Enrollment</u>	<u>% of Agricultural enrollment to Total</u>
1963	5433	106	1.9%
1964	5994	100	1.7
1965	6760	143	2.1

The present enrollment and subsequent graduates of students with a degree in Agriculture is not sufficient to meet the needs of the demand for agriculturists to serve the Ministry, IFE and private banking in the field of agriculture and farm management specialist for the large commercial agricultural operation in Panama. At the planning and technical assistance level, where the responsibility rests for the creation of policy, programs, and

supporting services to develop Panama's agricultural sector, there is serious need for personnel with formal training and practical experience.

Local university training in agriculture began at the University of Panama in 1959 and is limited to Agronomy. Eleven graduates completed the 5 year course in 1965 and in 1966, but for the next ten to twenty years the bulk of Panama's requirements for University level agricultural technicians will have to be met by training abroad. For the Government agencies alone, at least 150 university trained graduates will be required in the next ten years and best indications are that only about half of this number will be available. Assuming a continuing expansion and development of agriculture at the present rate, the increase in the private sector's demand for university trained agriculturists will doubtlessly accelerate its competition with government agencies for the limited supply.

The program will consist of training 10 participants a year as a graduate level for a 12 month year. The discipline of training will be Agricultural Research (Agronomy, soils, etc.); Agricultural Economics, Agricultural Credit, Business Administration, and Marketing.

The number for each discipline can be adjusted as the need and demand will be determined by the GOP each year with approval of USAID.

The project management will have the responsibility for the development of specific training needs and the identification of prospective trainees. The USAID will approve all training assignments and trainees. Once the training programs and candidates have been approved processing will be handled through established AID channels.

This program over a three year period will give additional technical training to 30 participants. It is planned to implement this training the fourth month after the signing of the loan agreement.

The total cost of this activity is \$222,000. The total AID input is \$150,000 to finance training costs. The total GOP input is \$72,000 to finance salaries of trainees.

MARKETING IMPROVEMENT

The effective supply of Panama's agricultural production is limited, not only by the slow changing production techniques practiced by the large numbers of Panama's small farmers, but also, by the lack of an adequate marketing system to readily and efficiently absorb, transfer and distribute this production to the consumer. The wide marketing margins indicated in the chart below are, in great part, directly related to the inadequacies of this system.

SPREAD BETWEEN FARM AND CONSUMER PRICESOF PRINCIPAL AGRICULTURAL PRODUCTSPANAMA 1965

<u>Product</u>	<u>Unit</u>	<u>Farm Prices</u> <u>(In Dollars)</u>	<u>Consumer</u> <u>Prices</u> <u>(In Dollars)</u>	<u>Difference</u>	
				<u>\$</u>	<u>%</u>
Rice in rough					
First class	cwt	6.10	15.00	8.90	146
Second class	cwt	5.28	12.80	7.52	142
Yams	cwt	4.47	10.40	5.93	133
Yuca	cwt	1.81	5.00	3.19	176
Potatoes	cwt	6.50	10.00	3.50	54
Tomatoes	lbs.	0.12	0.24	0.12	100
Chicken	lbs.	0.41	0.60	0.19	46
Milk	bot.	0.12	0.29	0.17	142
Eggs	doz.	0.50	0.67	0.17	34

Source: Planning Department, Presidency of the Republic.

Comparable to the production technology found in the sector, this marketing system is also marked by similar extremes which again favor only a small group of the larger, more efficient commercial producers. In general, however, the system not only tends to retard production increases in basic foodstuffs, but also greatly precludes the probability of productivity increases being passed on to the consumer in the form of lower prices.

More specific to the general objective of this loan project,

however, it is Panama's small farmer who suffers most from the present inadequacies of the system. Any program designed to increase his production must of necessity also provide for an improved marketing system to absorb this increase at more equitable prices than the system would currently permit.

The information and recommendations developed in the Agricultural Marketing Feasibility Study by Sanderson and Porter/ Lopez Fabrega and Associates, financed under AID Loan 525-L-008, fully support the need for the following activities and this study will be utilized by the U.C. technical assistance contractor in the development and implementation of the related sub-components.

A. Technical Assistance in Marketing Services

The objective of this activity is to provide technical assistance in the development, training and implementation of a series of basic government services needed in Panama to stimulate the development of a modern marketing system and to provide additional data needed to improve GOP price support programming. These services include the following:

1. Programs of Price and Market News

MACI now has a system of reporting central market prices to interior shipping points that was initiated in 1954. This information, collected on grains, fruits and vegetables, is valuable, but it is insufficient to assist producers and shippers in determining quantities sold or needed, nor does it adequately reflect quality differences. Also, contrary to its original purpose, the existing service has now become more of a tool for the middleman than the producer for whom it was also intended. Modifications in the program and improvements in the dissemination of the information are required to better serve the needs of the farmers who are the object of this loan project. This program will be especially designed to assist the small producers obtain the maximum farm value from their increased production.

2. Grades and Standards Program

With the exception of rice no established grades and

standards now exist for agricultural commodities in Panama and these are mandatory to make production, price and marketing information useful to all participants in a modern agriculture marketing system. Quality recognition in pricing on more exacting standards than is possible under current practices is needed to improve the market potential for crops as well as to reward producers for the improved quality resulting from the application of new and better cultivation practices. The standards will provide a basis for judging the value of commodities for storage, fresh marketing, and for processing that is recognized by producers, shippers, processors, marketing firms and consumers alike.

3. Crop Forecasting Program

MACI has no effective crop forecasting system at the present and potential processors or other major users of agricultural commodities cannot tell without crop reports when to buy or how much to buy to economically fulfill their needs or make adequate provisions to absorb excesses. In selected commodities where two crops annually are possible, timely crop forecasts would assist MACI extension agents to improve their planting recommendations to their farmer clientele. Such information as supplies, potential suppliers, stocks, and prices are vital in planning and operating economic size marketing units such as marketing centers, cooperatives, supermarkets, and efficient processing plants. Crop reporting, as well as price and market information, is also essential to the scale of marketing enterprise needed to reduce unit costs in marketing (margins) to encourage maximum consumption of the products.

4. Production Cost Studies

The GOP is endeavoring, within its fiscal and technical capabilities, to maintain or develop self-sufficiency in the production of a series of basic agricultural commodities which can be grown locally and to make these commodities available to the consumer at fair prices which also provide an equitable return to the producer. To advance this effort, a limited price support program for rice, corn and beans and a system on controlled prices for basic foodstuffs at the

consumer level are employed. No up-to-date studies have been undertaken since 1954 on production costs of the various basic agricultural commodities and this activity is designed to accomplish this objective. The studies proposed under this project will be used primarily to guide the Office of Price Regulation (O. R. P.) and IFE in establishing support and market prices which will be equitable to both the producer and the consumer.

These data on production costs will also assist planning within MACI to project and emphasize those products which can be encouraged to meet domestic consumption needs as well as some selected commodities for export.

GOP personnel will receive training in this activity by the consultants and be expected to update these studies on a regular basis thereafter.

The total estimated cost of the four activities noted above is \$370,000.

The AID financed portion for U.S. technical assistance will approximate \$150,000 and it is proposed that one contract for a University or PASA group be developed to cover the four activities of this sub-component.

The GOP input, for salaries, local training, and operational expense for the new or expanded programs, is estimated at \$120,000.

B. Vegetable Marketing Equipment

The objective of this component is to provide additional equipment to permit an expansion of a MACI vegetable marketing program. Two refrigerated trucks and drying equipment for onions and potatoes will be provided.

The GOP is endeavoring to stimulate the private sector to assume a greater role in providing an adequate system of marketing facilities and services. It is felt, however, that the need is sufficiently urgent to warrant temporary Government participation in the provision of some of these facilities. The marketing of

perishable products is one of the more critical and difficult areas of the marketing system to be developed. To assist in this area, the GOP has developed a vegetable marketing program. Handling the produce on a consignment basis, this program receives, processes, and wholesales vegetables from the smaller producers and cooperatives located in the two principal vegetable growing areas of Boquete and Cerro Punta, located approximately 350 miles west of Panama.

The MACI vegetable marketing program provides an additional outlet for the produce of small vegetable farmers and at more equitable prices that would otherwise prevail. It employs modern cleaning, grading and packing equipment provided under previous AID programs and has served to also stimulate the demand for quality produce as well as demonstrate the value of proper handling and packing processes. The two trucks will permit MACI to reduce the loss in quality resulting from the long haul from the vegetable producing areas and return the bulk of these savings directly to the producers. No similar transportation facilities are in use for perishable produce in Panama at the present and a demonstration effect will also result from their use. A similar demonstration effect (an activity new in Panama's rural area) will result from use of the drying equipment, as well as an increase in saving from losses, by the producers.

The partially subsidized MACI custom services provided under this program are expected to be continued for a period of no longer than 4 to 5 more years. During this period a continuing effort will be made to strengthen one or more of the larger vegetable producing cooperatives in order that they could assume control and management of the facilities and equipment employed in the vegetable marketing program. These assets, exclusive of the new equipment in this proposal, total approximately \$125,000.

The total cost of this sub-component is estimated at \$102,000. U.S. procurement of equipment to be financed by the AID loan is estimated at \$70,000 and the GOP input on the expanded program covering salaries, local training and equipment operation and maintenance is estimated at \$32,000.

PRODUCTION CREDIT

A major tool for increasing production and marketing capabilities of the agricultural sector is the availability of credit. Although this is an on-going project following a program established by the first agricultural development loan, not only will funds be made available for sub-loans but technical assistance will also be furnished to train new agents to upgrade the present personnel to more effectively handle the credit aspects of this development loan.

A. Loan Funds

The purpose of this activity is to assist low income farmers to increase their production capacity through improved seed, mechanization, fertilizer, improved breeding animals by providing the necessary credit inputs.

The total value of agricultural loans in 1967 was some \$18.0 million. Approximately 40 percent of this credit came from the private sector. This credit was directed to the larger commercial farmers and agricultural enterprises. Agricultural credit sponsored by the GOP through the National Bank and the Instituto de Fomento Económico (IFE) was also directed to the larger more affluent farmer whose collateral and ability to repay obligations put this credit in the commercial category.

Although both private banks and government lending agencies, such as the National Bank and IFE, have an excess of loan funds which they are not able to place, the group of farmers to which this program is directed are not eligible for those funds. Since all of the credit granted under the program requires technical assistance and direction, it is necessary to have the credit directed by the Ministry agents.

Data from loans granted to these small farmers in the previous loan (525-L-010) indicate that over 56% of those loans were made to operators with incomes of \$800 per year or less. Loans granted for such small operations have a strong social justification.

The following data is based on 2,811 sub-loans totalling \$788,617 financed through AID Loan No. 525-L-010 Agricultural

Development Loan.

I. Loan Size

- a) 30.0% between \$ 38 - \$ 325
- b) 26.2% " 326 - 800
- c) 9.5% " 801 - 1,400
- d) 14.3% " 1,401 - 2,100

II. Average size farm receiving sub-loan - 41 hectares

- a) 42.9% between 1 - 10 hectares
- b) 21.4% " 11 - 40 "
- c) 26.2% " 41 - 100 "
- d) 9.5% " 101 - 163 "

III. Farmers receiving Sub-loans average gross income \$1,084

- a) 40.5% between \$ 100 - \$ 500
- b) 23.8% " 501 - 1,000
- c) 21.4% " 1,001 - 2,000
- d) 14.3% " 2,001 - 4,100

However, in a credit climate such as presently exists in Panama, small and marginal farmers attempting to move into the market economy and increase their income through increased production will not be financed unless some type of public program comes to their assistance. Experience obtained in the credit program of the Agricultural Development Loan (AID Loan No. 525-L-010) clearly indicates that credit for the low income farmer must be subsidized in its supervisory aspects. The commercial banking institutions cannot afford to provide the supervision and the technical assistance required to make small agricultural loans effective. The loans of the National Bank and the Instituto de Fomento Económico (IFE) indicate the same situation.

This was Panama's first attempt at supervised credit and while the USAID considers this program effective in reaching the low income farmers it has not been without problems. The most recent information indicates that 12 percent of the total of these loan funds are now delinquent. However, it should be pointed out that loans under a program of this type necessarily incur losses.

As pointed out above Panama heretofore was not organized to handle this type of credit. Neither the National Bank nor the Instituto de Fomento Económico (IFE) had either the personnel or the field staff to provide the necessary supervision. The Ministry of Agriculture, who was the most interested in assisting these small farmers, had the necessary field organization in their Extension Service, but the Ministry is not a financing institution. Also, the GOP, was not disposed to create an additional financing organization in the Ministry. To resolve this situation an agreement was reached between the Ministry of Agriculture and the Instituto de Fomento Económico (IFE) whereby the Ministry would provide the technical assistance and IFE would provide the banking services. This arrangement has revealed some operational problems that must be resolved to make the loan procedure more efficient. Legal procedures for collecting delinquent loans have been established and improved collection procedure must now be designed and implemented.

This program must be considered not only as a credit program to reach the small marginal producer but also as an educational program to teach these operation how to use credit as an instrument of production. As these marginal producers develop they will then be able to obtain their credit from existing institution, IFE and the National Bank.

While deficiencies such as those noted above are recognized and must be corrected, it is also important that the on-going program continue to provide credit inputs while operational improvements are effected. While many of the farmers now participating in this program will be repeat customers an estimated 15 percent were able to secure credit from other public and private sources last year. This activity proposes to make available additional funds to provide credit to a greater number of the low income farmers and at the same time provide the technical assistance in supervised credit to remedy existing operational deficiencies. To train technicians to implement such a program has been and will continue to be a major bottleneck for its efficient operation. However, the technical assistance which is provided for in this loan will provide for an analysis of the present program and recommendations for improvement. It will further provide for an Advisor in Credit to work with the program for training technicians in MACI and IFE for two years and to also

establish a continuing training program for field personnel who are presently working in the supervised credit program and new personnel needed for its expansion. This training program will provide a trained cadre to carry on this program in coordination with lending institutions operating in the private sector.

o Certain limitations will be applied to granting sub-loans from funds made available by this activity. Present thinking anticipates limiting subloans to farmer with annual gross income of less than \$1,000 and who cannot meet credit and security requirements of IFE from its regular funds. The Ministry of Agriculture through its extension service will be responsible for identifying, qualifying, developing farm plans, and assisting the farmer through the sub-loan documentation procedures. The Instituto de Fomento Economico will provide the banking services. Technical advisors will be provided to review existing practices, recommend improved procedures and monitor the lending program throughout its implementation.

The majority of Panama's farmers fall into the category of marginal or subsistence operators, and it is to this group which the proposed loan funds are directed. Their need for credit is great but their capacity for absorption of credit is limited. Agents are limited to working with a small group of farmers because their need for direction and planning is time consuming. Until additional technicians can be trained the amount of loan funds that can be utilized remains modest.

Total funds available under this program for program is \$1,300,000. The GOP contribution is \$300,000 and U.S. contribution for sub-loans is \$1,000,000.

April 1969

PROPOSED \$1,000,000 DISBURSEMENT SCHEDULE

FOR SUPERVISED AGRICULTURAL CREDIT

	<u>1969</u>	<u>1970</u> ^{1/}	<u>1971</u> ^{2/}
<u>Cattle</u>			
Capital	300,000	275,000	150,000
Production	90,000	50,000	25,000
Sub-Total	390,000	325,000	175,000
<u>Crops</u>			
<u>Production</u>	200,000	290,000	160,000
Corn			
Cow Pea			
Sorghum			
Vegetables			
Rice			
<u>Capital</u>	10,000	10,000	15,000
Sub-Total	210,000	300,000	175,000
<u>TOTAL</u>	<u>600,000</u>	<u>650,000</u>	<u>350,000</u>

^{1/} Assumes that \$250,000 repaid from 1969 loans disbursed.

^{2/} Assumes \$350,000 repaid from 1967-70 loans disbursed.

B. Technical Assistance

Although a credit program was established in the first Agricultural Development Loan (525-L-010) the operational agencies of the Government (MACI and IFE) have ascertained that there is a need for technical assistance. This will be for developing improved lending procedures, evaluation techniques and for training technicians.

The funds available in this loan for credit will double the amount of money now available for sub-loans to the small farmer. A supervised credit program for small operators requires close supervision by agents of MACI. It is estimated that a new agent can handle from 20 to 30 loans and an experienced agent 40 to 50. Assuming that the new loan will make funds available for 3,000 new loans, one hundred new agents will be required to supervise the new program alone. It is also necessary to continue to train agents presently working on the credit aspects of the program to improve their skills in evaluation of credit needs and processing of loans.

Although some technical assistance was provided to the program by the Rural Development Division in the first development loan, with an expansion of the credit portion it will be necessary to provide more technical assistance.

Technical assistance will be provided by U.S. technicians. They will also supervise the training of agents from MACI and IFE.

Technical Advisory Services

This loan will provide \$75,000 for technical services and, local costs, provided by the GOP will be \$10,000.

1. \$15,000 for developing improved procedures and evaluation techniques.
2. \$60,000 for a U.S. technical advisor in agricultural credit for a period of two years to train personnel conducting the program. (IFE and MACI).
3. \$10,000 for an in-country training program to be conducted during the first two years after first disbursement.

POLICY AND PROGRAM DEVELOPMENT

More effective planning, including the development of a comprehensive plan for the agricultural sector, and coordination of all related activities at both the national and local levels are required to modernize rural life and accelerate development of the rural sector. This will involve a strengthening of the planning agencies and a continuing exchange of information and collaboration among a number of ministries and autonomous agencies. The national economic development plan for 1963-1970 prepared by the National Department of Planning (NDP) contains some data on the agricultural sector, but these data are sketchy and agricultural program decisions have been made on an ad-hoc basis in the absence of a well defined agricultural policy.

Production controls per se are absent, but again production of certain commodities can be and are heavily influenced by the production credit and price support practices of the Instituto de Fomento Economico (IFE) and the Office of Price Control (ORP). Price supports plus increased technical assistance and production credit, have led to a 40 percent increase in rice production over the last five years and changed Panama from a rice importing country to self-sufficiency in rice production. In late 1966, ORP reduced the price of rice to the consumer by approximately 15 percent. Increased efforts aimed at meeting internal demand for other basic products, providing certain import substitutes such as edible oils, and making available commodities for export must be made.

This component proposes to complement and support on-going efforts for the development of a comprehensive agricultural policy. AID is now providing technical assistance for the development of a national economic plan (the elements of which are in varying stages of completion) to the NPD through a private consultant firm. The agricultural portion of the plan still requires substantial data and analyses before it can be completed. This component proposes to finance additional technical assistance in policy development not only to augment the efforts of the NPD but also to support the efforts of the Ministry of Agriculture, the Agrarian Reform Agency, the National Development Institute, the Ministry of Finance, the Bureau of Statistics and Census, the Office of Price Control, and private sector agro-industries. It is proposed to assist these agencies in conducting the necessary sectoral studies which will

develop information for near and long term policy formulation. These studies will act as a catalyst within the involved institutions in Panama and will lead to a more unified approach to policy and planning. The analyses that will be undertaken will concern but not be limited to the following problem areas: (a) cost studies, demand studies, trade policies for agricultural commodities, and short and long range implication for Panama's pricing policies; (b) the relationships of the MACI and other GOP agencies affecting the development process of the sector; and (c) the role of the small farmer and the land tenure system in Panama. The Rural Cadaster and Natural Resource Survey Project (525-L-007) is nearing completion and will provide basic information concerning land tenure which must be analyzed and related to policy. To the extent possible this technical assistance will be coordinated with the technical education and other technical assistance components of this loan.

It is planned to divide this technical assistance into two operational phases. The first phase would mobilize technical assistance to review the general situation, define areas that need study for the provision of necessary information, and develop scopes of work including methodology and timeframes for Panamanian technicians to follow in carrying out these specific studies. Then the technical assistance will be demobilized. The second phase of technical assistance will begin when the special studies have been completed or are nearing completion. The U.S. technicians will be remobilized in Panama to assist in analyzing the information and relating the findings to policy and program recommendations which will include areas such as, policy elements, priorities, timeframes, and legislative changes where necessary.

The total cost of this component is \$125,000. The total AID input is \$75,000 to finance U.S. technical assistance. The total GOP input is \$50,000 to finance additional local support for the technical assistance.

SECTION IV - Economic Analysis1. Trends During the Alliance Period

Panama's economic performance during the period of the Alliance thus far has been very impressive. On the average, annual increases in GNP exceeded 9 percent from 1960 to 1966. (See Annex II, Exhibit 17). Notwithstanding this rapid growth, price level increases were minimal particularly for controlled items, averaging 1 percent annually. Thus Panama's real per capita growth, despite a population increase of over 3 percent, well exceeded the Alliance growth target of 2.5 percent annually.

Supporting this growth were a substantial expansion of credit and domestic savings, vigorous private investment activity, and considerable increases in the country's capacity to import, supplemented by a strong flow of external financial resources. In terms of growth, the leading sectors were manufacturing; banking, insurance and real estate; transport and communication; and the construction sector. The agricultural sector retained its position as the most important contributor to GNP and, itself, grew at a moderately high rate due in large part, however, to substantial increases in the production of bananas.

The fiscal performance of the Central Government was generally good with marked increases in revenue resulting from a major tax reform in 1964. Central Government consumption expenditure, however, showed considerable increases as well.

Current Situation (1966-1968)(a) General

In 1966, GNP in current prices increased by well over 10 percent. Most significant was an over 40 percent increase in gross fixed investment.

Domestic credit continued to expand rapidly with impressive increases in domestic time and savings deposits contributing significantly to the banking system's credit potential.

Country-wide, in spite of a large increase in the labor force, unemployment was reduced from 7.4 percent in 1965 to 4.9 percent in 1966. Unemployment in the Metropolitan Area (primarily Metropolitan Panama City and Colon) was reduced from 12.4 percent in 1965 to 8.3 percent in 1966. Underemployment increased moderately in the Metropolitan Area to 12.9 percent in 1966. (See Annex II, Exhibit 18).

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Available data concerning Panama's economic performance in 1967 are sketchy, but appear to indicate a continued high growth at a high level though likely lower than that of 1966. Incomplete data point to an expansion of domestic credit on the order of that of 1966. Compared to the performance of recent years, growth in commodity exports appears to have weakened but the important receipts from travel and from services to the Canal Zone may have compensated, to an extent, in terms of over-all growth in gross foreign exchange earnings. Growth in commodity imports appears to have slackened but was the result, in part, of a slow-down in crude petroleum imports during a period coincident with a temporary interruption of refining operations for normal maintenance; and likely the result, as well, of increased production of import substitutes. Data on capital goods imports through the second quarter indicate the possibility of capital goods investment of a slightly greater magnitude than the high level attained in 1966. Finally, this high level of capital goods investment in 1966 was likely felt in a further strong expansion of industrial production in 1967.

Since 1968 is an election year, economic decisions may be more cautiously made and some investment decisions may be postponed until the political situation is clarified. In early 1968, however, business confidence remained high and, barring unforeseen circumstances, a continued high rate of economic growth (although again at a lower rate than that of 1966) can be expected.

b) Investment

Investment expenditure in Panama has been increasing at a rate well above the average rate of increase in GNP. Gross investment expenditure in Panama as a percent of GNP has compared quite favorably with the Latin American average. (See Annex II Exhibit 19).

In 1966, investment activity in Panama was intense. Construction and capital goods investment shared nearly equally in generating an increase of over 40 percent in gross fixed investment. This sharp increase was almost entirely attributable to the private sector. While no doubt the result of several factors, including incentives in the form of import restrictions, the marked increases in private investment which have taken place since 1964 would not have been possible without the climate of stability which has prevailed since.

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It would seem unlikely that the sharp rate of increase in private sector investment in 1966 could have been maintained in 1967. Rather, it is expected that 1967 data will show an increase, but at a somewhat reduced rate.

Fixed investment in the public sector declined over the few years preceding 1966. In 1966 public sector fixed investment decreased slightly from the 1965 level. One reason for this performance lies in the fact that a not unsubstantial sum of public sector capital outlays take the form of financial investment channeled to the private sector through industrial and agricultural credit and mortgage operations of the public sector. These sums do not appear in the national income accounts totals, nor do they appear on a gross basis in public finance publications.

According to Planning Office estimates, a substantial increase (over 50 percent) in fixed investment outlays of the public sector should have taken place in 1967 over the 1966 level of 20 million. Planning figures for 1968, based on the project "pipeline", indicate another large increase in public sector fixed investment outlays to some \$40 million. However, with attention focusing on the political campaign and with a change in administration to follow, this planning level may be somewhat optimistic.

c) Public Finance

The revenue performance of the Central Government, as a result of a major tax reform in 1964 and improved administration, has been excellent with income and profits taxes gaining in relative importance to other revenue. During the early 1960's Central Government revenue was increasing at a rate below that of GNP. But by 1966, this trend had been reversed with revenue increasing by 16 percent over the 1965 level and with income and profits taxes alone increasing by 34 percent. In 1966, income and profits taxes represented 30 percent of the Central Government's ordinary revenue, comparing quite favorably with the 15 percent average of the five other Central American countries. According to preliminary data, ordinary receipts for 1967 increased by over 12 percent to \$112.7 million. (See Annex II, Exhibit 20).

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Expenditure, however, has generally remained abreast of increases in revenue. Thus, while small "ordinary" budget surpluses were registered in 1965 and 1966, a small deficit (less than \$1 million) was registered in 1967, according to preliminary data. Although this increase in ordinary expenditure has been to a degree, in direct or indirect support of development (e.g. along with qualitative improvements, both the Planning Office and Income tax staffs have been doubled since 1964), it has also been clear that fiscal restraint would have to be exercised. This apparently was accomplished in 1967 when ordinary expenditure was held below the amount budgeted.

Ordinary expenditure of roughly \$130 million has been budgeted for 1968 (revenue in 1967 was 112.7 million). Since it appears that the rate of increase in income and profits tax collections tapered off somewhat in 1967 (according to unofficial estimates) as did the increase in ordinary revenue as a whole, restraint in Central Government consumption expenditure will probably have to be exercised in 1968 to assure the commitment of budgeted amounts for capital outlays and to keep ordinary expenditure and revenue in reasonable balance. Since 1968 is an election year this may prove to be somewhat difficult.

Debt Repayment Capacity

At the end of 1966, the funded debt outstanding of the Central Government was \$125 million. Service payments against this debt amounted to \$11.8 million. Payments against the floating debt of the Central Government, another \$3.2 million, brought total debt service payments to some \$15 million, or 15 percent of ordinary revenue.

Of the total funded debt of the Central Government in 1966, some \$69 million represented external debt. Service payments against this debt amounted to \$5.5 million. In addition, public autonomous institutions owed some \$25 million (against \$40 million authorized) in directly contracted external debt, and made service payments of \$1.4 million. Thus, in 1966, public sector servicing of external debt amounted to \$6.9 million, less than 3 percent of gross foreign exchange earnings.

In 1967, the external debt of the public sector (Central Government and autonomous agencies) is estimated to have increased by a net of some \$15 to \$16 million and external debt service payments to have increased to a total of over \$8 million.

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The deficit in 1968 will probably show another increase, the size of which will be dependent in large part on the rate of growth in travel receipts and on the completion of the refinery expansion project.

Panama's current and transfer account deficit has been financed primarily by private direct investment and official loans from abroad as well as by net increases in the foreign liabilities of the banking system.

Having increased to roughly \$13.8 million in 1966, net disbursements (net of amortization payments) from foreign official loans accounted for a substantial portion of the financing of the current deficit. In 1967 net disbursements from foreign official loans were estimated to have increased to \$17.2 million with another increase projected for 1968.

Macro-Economic Summary

Panama's economic performance during the Alliance period has been excellent. Current prospects for further growth at high levels are good, but the rate of growth will probably not continue at the level achieved in 1966.

Since early 1964 when confidence was at a low ebb, the Government of Panama has undertaken a major tax reform, has established a "climate" conducive to strong private investment activity, and has carried out an impressive array of social and economic development projects.

As was pointed out in the October 1967 document prepared by the CIAP Secretariat, "the overall growth and fiscal record in Panama since 1960, although not without its problems, is one of gratifying progress justifying vigorous international support for future development efforts."

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d) Balance of Payments

A well-defined trend in Panama's balance of payments accounts, over the years, has been a relatively sizeable and growing trade deficit which has been largely off-set by a growing services surplus with the Canal Zone. The net result in 1966 was a current account and transfer deficit of \$26.4 million. (See Annex II, Exhibits 21-22 & 23)

In 1966 commodity exports, led by bananas, increased by 12.4 percent over 1965's level. Incomplete data for 1967 indicate that commodity exports may have increased at a somewhat lower rate. The primary reason for this anticipated slackening in the growth of exports in 1967 stems from a decrease in exports of petroleum products resulting from a normal shut-down for maintenance of the refining facility. This, to a large extent, will have neutralized for an increase in exports of bananas of about 10 percent. With an expansion of refining capacity scheduled for completion in the summer of 1968, exports of refined petroleum will likely pick up during the second half (as will imports of crude petroleum). Banana exports should continue to register increases, although not on the order of recent years. No significant boost in the export total can be expected from Panama's secondary exports, with the possible exception of fishmeal and citrus products, the latter resulting from a recently established processing plant.

Of Panama's gross foreign exchange earnings in 1966, 60 percent originated from services, primary among which were travel receipts and earnings from services rendered to the Canal Zone. The services category, as a whole, can be expected to have generated increases in foreign exchange earnings in 1967 and, barring unforeseen circumstances, to do like wise in 1968. This conclusion is based on expected increases in receipts from tourism and from services to the Canal Zone.

The net result of this current account activity in 1967 was likely a small to moderate increase over Panama's 1966 current and transfer account deficit of \$26.4 million.

2. Economic Justification

Agriculture in Panama supports, directly, nearly 50 percent of the country's population. Yet it produces less than 20 percent of Panama's gross domestic product. Even then, a somewhat distorted picture of the sector emerges in that banana production which employs methods atypical of the sector as a whole, claims an important share of its product. Agriculture's importance to the country, of course, extends well beyond the farm value of GDP, and is reflected in the margins of the marketing and processing of agricultural commodities.

The description of agricultural operations in Panama which emerged from the 1960 census is probably generally applicable today. Of the then identified 95 thousand farm operators (a more recent natural resources survey has identified over 120 thousand), 46 percent farmed fewer than 5 hectares of land. Some 80 percent farmed fewer than 20 hectares and two-thirds of these operators were squatters. This same 80 percent farmed 20 percent of all lands in farms. Most of these farmers sold little or no produce and for most purposes, lived outside the economy. Except perhaps for the slums and shanty towns in urban areas to which many of these farmers migrate, nowhere in Panama is income distribution a more serious problem and life, in general, a greater hardship than on the subsistence farm. In sharp contrast, a thin layer of large mechanized operations and an emerging group of productive and responsive, smaller farmers, supply the markets and earn profits.

The evident technical explanation for lagging progress in Panama's agricultural sector is its insufficient use of capital. Generally decreasing yields with additional inputs of land and labor; one of the lowest levels of agricultural productivity in Latin America; and a disproportionately low volume of credit are together persuasive indicators of a relatively low level use of capital. And the non-use of capital, in turn, is more likely the result of a combination of the sector's inability to use capital and the risks to potential creditors than of an inherently greater yield per dollar input of capital in other sectors.

While there remains land in the country suitable for agricultural purposes its extent alone cannot assure the achievement of soundly conceived agricultural policy objectives for the medium, much less for the longer term. Increasing inputs of capital will be required. And the ability of the

sector to use capital will have to be strengthened. Among the smaller farmers, particularly, where the size of the land operated severely limits the use of capital and where traditional methods are deeply entrenched, the long term nature of this objective is abundantly clear. It is among these farmers, especially, where price, sales and profit signify little or nothing and consequently, where such tools as price policy evoke little response. Only such direct, high cost and high risk approaches as supervised agricultural credit can begin to generate the changes that are required.

Among medium size farmers and some smaller farmers, receptivity to the use of capital and new methods while still limited, is more encouraging. Among these farmers, minimal cost access to capital inputs, and technological transfer through demonstration programs, extension services, and education programs can have an appreciable impact.

The full potential of agriculture in Panama is not known. When the processing of the natural resources survey has been completed, the extent and varying potential for agricultural uses of the country's lands will become more clear. Still, it is evident from what is known, that the sector has been lagging in the development of its potential. With the exception of bananas (a foreign sector enclave), Panama's crop exports are negligible. In fact with the further abstraction from refined petroleum and shrimp, Panama's commodity exports, as a whole, are negligible.

The selective use of quotas on agricultural imports has undoubtedly served to stimulate domestic agricultural production,* in spite of low productivity, domestic agricultural supply appears to be moving in tandem with effective demand. Prices of domestically produced commodities are relatively high compared to world prices. Relatively strong prices for certain commodities appear to stem more from quota protection combined

* some of which is probably uneconomical.

with increasing demand, rather than from government purchases which appear to have been too small to have had long term effects, although they might have contributed somewhat to short-term price stability.

Over the longer term, Panama will have to develop means of earning foreign exchange apart from the Canal. Consistent with this objective, the orientation of agricultural production toward the limited domestic market must be modified. This is especially so if the objectives of both higher productivity and income for farmers are to be achieved over the long term. This will require more extensive research into Panama's potential to produce, efficiently, crops with favorable long term world market prospects. Beyond improved research services, the development of crops (other than traditional commodities) for export (most likely tropical crops) will require, as well, a greater capacity of Panama's agricultural sector to absorb capital and to respond to market developments, and soundly conceived government policy to encourage exports.

If the public sector in Panama is to provide the necessary stimulus to agriculture, it too will have to be strengthened. The production of agricultural specialists for government as well as for the private sector will have to be increased. Qualified government personnel will have to receive specialized training. Beyond the training of personnel to provide improved research, extension, credit and other services, the training of highly qualified technicians for the formulation of policy will be required.

Several policy areas require attention. Before policy can be formulated in most cases, however, additional data will have to be developed and analyses performed. Reliable cost data; demand projections; the implications of current and projected trends for price support policy; the effective use of land classification data; the selective use of credit, of other incentives and of disincentives; and a more clearly defined land tenure policy are all areas that require investigation.

The scope and objectives of the proposed project are both broad and limited. Generally, the selected inputs will attack a broad range of factors limiting sectoral growth. None alone can solve the sector's problems, but together they will strengthen the sector's capacity to absorb capital; improve its responsiveness to market incentives; and strengthen the public sector's ability to provide services and to formulate policy.

3 Local Cost Justification

The political aspects of local cost financing in Panama are discussed in the FY 1968 CASP as submitted by The Country Team and are herein incorporated by reference.

As has been discussed elsewhere in this paper, progress has been generally lagging in Panama's agricultural sector. As a result, a large segment of Panama's population has not enjoyed any visible improvement in its income or standard of living. An outlet for the harsh reality of subsistence farming which predominates farm operations in Panama has been a continuing rural-urban migration which has aggravated already serious urban problems. And from a different perspective, agriculture's potential contribution to the country's development is not being realized. The sector's low productivity, its negligible foreign exchange earnings (apart from bananas) and the thin market it provides for domestic production are not encouraging considerations for the country's development.

This situation results from the existence of several factors which have limited the ability of the sector to make broad advances. In summary form, these factors relate to the sector's capital absorptive capacity; to its marketing system; to the limitations of public sector policy and programs; and to the special problems of small farmers. All of these areas will be dealt with through the selected inputs of the proposed loan whose limits are generally based on the capacity of the GOP to facilitate their implementation and represent but a small portion of the sector's needs.

Generally, the proposed loan will attack a broad range of factors limiting sectoral growth. Together, they will strengthen the sector's capacity to absorb capital; improve its responsiveness to market incentives and strengthen the public sector's ability to provide services and to formulate policies. Concerning specific institutional aspects, the proposed project will provide for a doubling of enrollment capacity at The National Agricultural Institute; a sharp increase in the coverage of the Agriculture Department's extension service; qualitative improvements through advanced and specialized training of GOP agricultural personnel; and the strengthening of agricultural policy formulation through technical assistance in the development of required data and analyses.

During the period of The Alliance, Panama's efforts to develop its agriculture and to improve life in its rural areas have not been inconsiderable. An Agrarian Reform Commission was established in

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1963 and is currently carrying out land classification, land titling, and resettlement operations. In 1964 a program (assisted with an AID Loan) providing complementary inputs in six "priority" rural areas was initiated and recently completed. The Ministry of Agriculture, Commerce and Industry which before 1966 had 70 percent of its personnel in Panama City and 30 percent in rural Panama, underwent an organizational reform which resulted in a reversal of the proportions. The budget level of the Ministry's agricultural operations, \$1.3 million in 1960, was raised to nearly \$4 million in 1968. While still modest, this has resulted from a gradual and continuing expansion of the Ministry's agricultural activities and coverage.

The GOP's contribution to the proposed project will amount to \$2.7 million over a three year period. Thereafter, recurring operations and maintenance costs stemming from the proposed project, will amount to some \$800 thousand annually.

U. S. Balance of Payments Aspects

As a corollary to the above-mentioned considerations, the following points concerning the impact of the proposed project's dollar financing of local costs on the U.S. balance of payments are offered (for a more complete discussion of these aspects, see Annex 11, exhibits 24 and 25).

The local costs to be financed by the proposed loan amount to \$1.8 million. Loan-related dollar procurement will amount to \$2.2 million. Given an estimated foreign exchange multiplier of two, an average propensity to import of .33 and a U.S. share of 44 percent of Panama's imports, the U.S. imports to be indirectly generated solely by dollar financing of local costs would amount to an estimated \$523 thousand.

On the same statistical basis, given that a 72 percent share of Panama's imports is allocated among Western Hemisphere countries (principal among which are the primary markets for U.S. products in the Western Hemisphere), some \$855 thousand of Panama's imports generated by dollar financing of this project's local costs would be allocated to Western Hemisphere suppliers (including the U. S.). An estimated \$333 thousand would be allocated to non-Western Hemisphere suppliers and this, of course, taking place over the period of disbursement of the project (some three years).

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The second and subsequent round effects of exports generated by this project's dollar financing of local costs are beyond the scope of this analysis. However, it would appear quite safe to assume that the second round effects of income generated within the Western Hemisphere (beyond that generated in the U.S.) would have obvious salutary effects on U.S. relative to non-Western Hemisphere exports.

SECTION V - Financial Analysis

The total value of the project is \$6.8 million. AID contribution will be a loan to the GOP not to exceed \$4.0 million with a period of disbursement of three (3) years from the date of execution of the Loan Agreement.

(see attached chart: Total Project Costs)

The proposed financial plan is as follows:

	<u>Dollar Costs</u>	<u>Local Costs</u>	<u>Total Costs</u>	<u>%</u>
A.I.D.	2,200,000*	1,800,000	4,000,000	59
G.O.P.	<u>--</u>	<u>2,800,000</u>	<u>2,800,000**</u>	<u>41</u>
	2,200,000	4,600,000	6,800,000	100

The GOP contribution consists of:

- a - Land \$100,000
- b - Cash \$2,700,000

The land component of \$100,000 represents the value of the additional land needed for the centers planned for the technical development support program and for technical education.

The balance of the GOP contribution amounting to \$2,800,000 will be budgeted over a period of three years starting in 1969. The budget appropriation required for each year will be as follows:

- 1969 - 900,000
- 1970 - 900,000
- 1971 - 900,000

The GOP will be required to disburse its own funds for local costs concomitantly with A.I.D. funds for the same type of costs. A pure pari passu procedure would not apply since it could jeopardize the U.S. procurement schedule. Therefore appropriate sections will be

* This amount includes \$100,000 for contingencies
 ** This amount includes \$100,000 for contingencies

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TOTAL PROJECT COSTS
(In thousands of dollars)

	<u>Land</u>	<u>Construction</u>	<u>Equipment</u>	<u>Operations & Maintenance</u>	<u>Tech.Assist. & Prof.Serv.</u>	<u>Super. Agric. Credit</u>	<u>TOTAL</u>
I Technical Dev. Support	75	1000	750	1300	150	--	3275
II Technical Education	25	600	125	400	200	--	1350
III Marketing Improvement	--	--	75	150	150	--	375
IV Supervised Credit Prog.	--	--	--	300	75	1000	1375
V Program & Policy Dev.	--	--	--	50	75	--	125
VI Contingencies	--	100	150	--	50	--	300
TOTAL	100	1700*	1100*	2200	700*	1000	6800

* All U.S. dollar procurement estimates at \$2.2 million will be financed with A.I.D. funds.
The total amounts of columns 3 and 5 amount to \$1.8 million added to an estimate of \$400,000 of construction materials of U.S. origin is included in Column 2.

Incorporated in the Loan Agreement to require that each disbursement for local cost items except for land, be made by both A.I.D. and the Borrower in the proportion of their respective contribution to local cost financing. The total of local cost is estimated at \$4.6 million of which \$100,000 is earmarked for land purchase. Since A.I.D. funds cannot be used for the purchase of land the proportion will be 2/5 (40%) for AID and 3/5 (60%) for the G.O.P. It is suggested that A.I.D. pay only 40% of each voucher submitted for eligible local cost expenditures, without earmarking specific local cost items for A.I.D. financing.

In order to assure the implementation of this procedure for the disbursement for local costs appropriate sections will be incorporated in the Loan Agreement to assure that the contributions of the G.O.P. will be made available on a timely basis to the MACI. As a condition precedent to the first disbursement of loan funds the G.O.P. shall submit evidence, satisfactory to A.I.D., that the amount of \$900,000 earmarked for this project has been duly authorized and made available to the MACI. As a condition precedent to any disbursement of loan funds after the first of February 1970 the GOP shall submit evidence, satisfactory to A.I.D., that the amount \$900,000 earmarked for the project has been duly authorized and made available on a timely basis to the MACI. A similar condition will cover any disbursement of loan funds after the first of February 1971 requiring evidence satisfactory to A.I.D. that \$900,000 have been duly appropriated and made available to the MACI. The deadline of February 1, is chosen because the deadline for budget authorization by the National Assembly of Panama is January 31.

The A.I.D. funds will be used as follows:

- a) \$2,200,000 to finance the estimated dollar cost component for equipment (\$1,100,000) Technical Assistance and Professional Services (\$700,000) and construction materials (\$400,000) this amount is based on experience with other A.I.D. projects where in U.S. dollar costs in similar construction projects in Panama amount to about 25 percent.
- b) In all the discussions with the G.O.P. representatives A.I.D./Panama has sought to keep the financing of local cost items to a strict minimum. In this particular project where the total local cost component is \$4.5 million which is considered far out of the reach of the G.O.P. It is proposed to limit the A.I.D. financing of local costs to \$1,800,000. The G.O.P. will budget \$2.7 million over a period of three years.

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In addition to the substantial G.O.P. budget support, the funds earned from the Production Credit in further accordance with the Alliance for Progress objectives of self help will be re-employed to implement the recommendation of U.S. technicians. These contractors and technicians will be specifically employed to advise the G.O.P. on perfecting and perpetuating production credit techniques and coordinating with credit programs under the IDB loans which are aimed at more affluent farmers.

In order to foster this type of effort in the fields of agriculture, the most concessionary terms are proposed for this loan.

SECTION VI - Engineering Analysis**I. General Description**

The project is based on the accomplishment and data developed under the First Rural Development Program for Technical Assistance financed under AID Loan 525-L-010. The engineering and construction phase will entail relatively simple and uncomplicated planning and construction consisting of central offices and extension centers, adult education centers, agricultural vocation school with dormitory, laboratory and other auxiliary facilities, shed-type storage and distribution warehouses, and small pilot irrigation systems. The program is to be carried out over an approximate three-year period and comprises the construction of a series of subprojects which are delineated and described more in detail in Section III. A schedule of the estimated cost of construction is presented in this Section and a schedule of the total project costs, including those for engineering services, in Section V. The projected construction schedule is given in Annex II. The principal subprojects which encompass engineering and construction activity are as follows:

	<u>\$ US</u>	<u>\$B*</u>	<u>Total</u>
a. Construction of five Central offices within the subareas of Hato del Volcan, Mamoni, La Mesa, Valle Rico and Los Pozos.	22,000	66,000	88,000
b. Construction of a Warehouse and shop in Mamoni.	6,000	18,000	24,000
c. Construction of twenty-three Extension Centers within the subareas of Hato de Volcan, Llano de Coclé, La Mesa, Los Pozos, and Mamoni.	78,000	234,000	312,000
d. Construction of two Adult Education Centers with one at Capira and one at David.	25,000	75,000	100,000
e. Construction of Additions to Agricultural school at Divisa consisting of dormitories, kitchen and mess hall, laundry, dairy products laboratory, meat laboratory, hay shed, water supply facilities, and duplex-type housing.	125,000	375,000	500,000

*\$B = \$US at current rate of exchange

	<u>\$US</u>	<u>\$B</u>	<u>Total</u>
f. c Construction of Seed Storage Warehouse at Chiriqui.	25,000	75,000	100,000
g. Construction of two Machinery Pool, Storage Sheds with one at Santiago and one at Las Tablas.	12,500	37,500	50,000
h. Construction of Veterinary Laboratory at Tocumen	29,000	86,000	115,000
i. Construction of ten small pilot irrigation systems.	<u>76,000</u>	<u>229,000</u>	<u>305,000</u>
Subtotal	398,500	1,195,500	1,594,000
Contingencies			<u>106,000</u>
Total Construction			\$1,700,000

2. Technical Feasibility

The project is based on standards prepared and developed during the performance and accomplishment under AID Loan 525-L-010. In the implementation of this previous loan, MACI staff personnel furnished all engineering assistance in planning, design and construction supervision.

Based on this experience, MACI has developed the preliminary planning and cost data for the proposed construction to be financed with this new loan. The Extension Centers will be duplicates of those previously constructed and will be adapted to the new site condition. This is also true of the shed-type storage warehouses. Cost data prepared by MACI on other construction are also based on the previous experience under the 010 loan and include nominal allowances for estimated escalation. No one unit of construction is expected to exceed \$100,000.

It is considered that the technical and engineering requirement of FAA Section 611 have been met.

3. Implementation Plan

Final design and supervision of construction will be performed both by MACI using its personnel and its funds and by consultants to be retained by MACI financed with loan funds.

During the^C implementation of the OTO loan, MACI personnel effectively administered and performed the planning, design and supervision of all construction. It is proposed to do this again on the smaller and simpler projects, such as the Central Offices, Extension Centers, Storage Sheds and Warehouses, and the Pilot Irrigation Systems.

The design and supervision of construction of the relatively more complicated additions to the Agricultural School at Divisa will be performed by consultants to be retained by MACI and financed under the loan. The engineering consultant will be either a qualified U.S. firm, Panamanian firm, or joint venture of U.S. and Panamanian firms.

All construction will be performed by contract to be awarded through competitive bidding.

4. Maintenance

MACI will assume the responsibility of operating and maintaining the new facilities. The experience under the OTO loan shows that MACI has developed the organization and is adequately maintaining these previously constructed facilities.

A new operation and maintenance plan will be requested of MACI prior to disbursement for construction showing its revised organization and budget to adequately maintain the proposed facilities to be financed under this new loan.

SECTION VII - Implementation Plan

Meeting Conditions Precedent

It is estimated that all conditions precedent to the first disbursement can be met within ninety (90) days from the date of execution of the Loan Agreement.

Project Management

Project management will be composed of personnel from the Ministry of Agriculture and will be established similar to the previous Agricultural Development Loan (AID Loan No. 525-L-010). The majority of the key personnel will remain in their same jobs and become members of the management team for this project. These technicians have worked with AID programs for a number of years and are familiar with AID loan procedures.

Technical Assistance

Technical assistance will be provided through contractual arrangements with a U.S. university or the USDA. The monitoring of the implementation of recommendations made through technical assistance will be the responsibility of the Project Manager. The monitoring of funds disbursements for construction, acquisition of materials and installation costs will be the responsibility of the Project Manager. The Consulting Engineer will be responsible for the monitoring of funds for construction costs at the National Agricultural School at Divisa.

Disbursement of the Loan

Loan disbursements will be made under Letter of Commitment for the dollar costs and through Special Letter of Credit procedure for the Local Costs. It is estimated that the loan will be fully disbursed within three (3) years. (See Annex II Exhibit 12)

Control and Reporting

Fiscal control of loan funds will be the responsibility of the Ministry of Agriculture, and audit and review of activities will be made by the USAID Controller and by the GOP Controller, as appropriate.

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The Borrower shall submit to AID for its approval all construction plans and specifications, all procurement specifications, and all contractual arrangements in adequate detail. These plans and specifications should be prepared in consultation with advisors made available through technical assistance. The USAID/Panama Project Coordinator will have the responsibility of monitoring the general operation of the project.

SECTION VIII - Issues

The following issues were raised during the IRR discussion in AID Washington.

1. Of the loan components, it appears that only supervised agricultural credit activities will be exclusively utilized by the small farmers. In view of the fact that the primary goal of the loan will be to increase the production and productivity of the small farmer should not all of the components of this proposed program be specifically directed towards the small farmer?

(See SECTION III).

2. Analysis of Panama's farm pricing policies was a covenant in Loan 525-L-010. However, the GOP stated that it did not have any funds to make the study and consequently no analysis was made. It is recommended that such a price study be made a condition of the proposed loan with a specific time schedule. If necessary the loan paper should recommend that funds from the loan may be used to finance such a study.

This activity was included in the previous Loan (525-L-010) but it was not fully implemented for the following reasons: (1) the GOP placed higher priority on other activities of this loan activity; (2) Panama does not have a comprehensive agricultural policy that outlines pricing strategy, consequently pricing decisions are made on an ad-hoc basis among the office of Price Control, the Instituto de Fomento Económico, and the Ministry of Agriculture. The responsibilities of these organizations are ill defined. Therefore, no GOP organization was prepared nor willing to aggressively pursue pricing practice studies; (3) Rice prices were studied and while this study could have been more comprehensive it did contribute to a lowering of the price of rice to consumers. This reduction in price resulted in consumption increases in the lower income groups and provided an outlet for Panama's small amount of excess production.

An agricultural marketing feasibility study has been completed by Sanderson-Porter/Lopez Fabrega. This study provided some insights to pricing practices but not in sufficient depth upon which to base policy decisions.

The USAID recommends that a price practice study be made a condition of the proposed loan and that loan funds be used to finance such a study. (See SECTION III and IX).

3. The tentative AID disbursement schedule covers a three year period. The GOP financing indicated for the fourth and fifth years should be excluded and the total GOP contribution should be correspondingly reduced.

(See SECTION V)

4. Describe the precise nature of the GOP contributions. Will these contributions represent net additions to on-going expenses? Is the GOP owned land included in the estimate of GOP contributions?

(See SECTION III)

5. In view of the large percentage of local currency cost in the loan, the CAEC should decide whether AID should require more than the minimum requirements set forth in the Special Letter of Credit Memorandum.

(See SECTION V)

6. The loan paper should include consideration of Title IX opportunities under the program. For example, it may be possible to stimulate the development of cooperatives and village associations through the supervised credit program and through specific inputs in adult education and training.

(See SECTION III)

SECTION IX - Conditions and Covenants

Some of the conditions and covenants stated below are contained in the loan authorization draft. They are also proposed for inclusion in substance in the Loan Agreement.

A. Conditions Precedent

1. As conditions precedent to initial disbursement the Borrower shall submit, satisfactory to A.I.D.:
 - a) Evidence of compliance with the usual legal conditions.
 - b) A comprehensive work program for the initial period of the loan implementation up to the point of loan disbursements under activity implementation plans.
2. Prior to disbursement of funds for any contract for technical assistance or professional consulting services, including but not limited to a price practice study, the Borrower shall submit, satisfactory to A.I.D., evidence of such contractual arrangement.
3. Prior to the disbursement of funds for any purpose other than technical assistance or professional services, the Borrower shall submit, satisfactory to A.I.D.:
 - a) An overall implementation plan for carrying out the project.
 - b) An overall financial plan for carrying out the project.
4. Prior to the disbursement of funds for any activity under this project, the Borrower shall submit an activity implementation plan satisfactory to A.I.D.

B. Covenants

1. Unless A.I.D. otherwise agrees in writing, Borrower agrees to accept, implement and enforce recommendations made by professional consultants to be provided under this program, and furthermore

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agrees to review with A.I.D. on a periodic basis the extent of adherence to this covenant.

2. Borrower shall provide adequate resources to complete the Project, and such resources as are required to carry out the activities contemplated after disbursement of loan proceeds.
3. Except as A.I.D. may otherwise agree in writing, income to the Borrower generated through the use of loan proceeds shall be utilized solely for the purpose of the project.

A.I.D. 1240-2 (11-67)

CHECKLIST OF STATUTORY CRITERIA

(Alliance for Progress)

PANAMA: AGRICULTURAL DEVELOPMENT

In the right-hand margin, summarize for each item the information or conclusion requested. As necessary, reference the section(s) of the Capital Assistance Paper, or other clearly identified and available document, in which the matter is further discussed. This form may be made a part of the Capital Assistance Paper.

The following abbreviations are used:

FAA - Foreign Assistance Act of 1961, as amended by the Foreign Assistance Act of 1967.

App.- Foreign Assistance and Related Agencies Appropriations Act, 1968.

COUNTRY PERFORMANCE

Progress Towards Country Goals

1. FAA 8.208; 8.251(b)(1); 8.251(b)(5); 8.251(b)(6). Extent to which country is:

a. *Making appropriate efforts to increase food production and improve means for food storage and distribution.*

The growth in agricultural production in Panama is among the highest in Latin America. Improvement in food storage and distribution has been satisfactory and efforts to improve this is continually being made.

b. *Creating a favorable climate for foreign and domestic private enterprise and investment.*

The climate for foreign and domestic private enterprise and investment has been most satisfactory as evidenced by the very high rate of increase in this area over the past several years.

c. *Increasing the public's role in the developmental process.*

The public's role in the developmental process is being encouraged through many of the AID and GOP programs.

d. *Allocating expenditures to development rather than to unnecessary military purposes or intervention in other free countries' affairs.*

Panama's efforts have been directed to internal economic development, rather than for military purposes or external intervention.

e. *Willing to contribute funds to the project or program.*

The GOP in recognition of this project's importance is providing \$1.5 million, all additional operating expenses, local support for contract technicians and all of the necessary land.

f. *Making economic, social, and political reforms such as tax collection improvements and changes in land tenure arrangement, and making progress toward respect for the rule of law, freedom of expression and of the press, and recognizing the importance of individual freedom, initiative, and private enterprise.*

Many improvements have been made in Panama during recent years. Best evidence is seen from country's growth in all sectors of the economy.

g. *Adhering to the principles of the Act of Bogota and Charter of Punta del Este.*

Panama is adhering to the best principles of the Act and Charter.

h. *Responding to the vital economic, political, and social concerns of its people, and demonstrating a clear determination to take effective self-help measures.*

As illustrated in paragraph e. above, the GOP is responding to the economic, political and social concerns of its people and encouraging the effective self-help aspect of the private sector's efforts in creating a new institution of group action.

2. FAA §. 251(b). *Information and conclusion on country's efforts to repatriate capital invested in other countries by its own citizens.*

This has not been considered a problem for Panama and a relatively small amount of capital is invested abroad.

Relations With U. S. and Other Nations

3. FAA §.620(c). *If assistance to a government, existence of indebtedness to a U. S. citizen for goods or services furnished or ordered where such citizen has exhausted available legal remedies, debt is not denied or contested by such government or indebtedness arises under an unconditional government guaranty.* **Panama is not known to be so indebted to a U.S. citizen.**
4. FAA §.620(d). *If assistance for any productive enterprise which will compete in the U. S. with U. S. enterprise, existence of agreement by the recipient country to prevent export to the U. S. of more than 20% of the enterprise's annual production during the life of the loan.* **Not applicable.**
5. FAA §.620(e)(1). *If assistance to a government, extent to which it (including government agencies or subdivisions) has taken any action which has the effect of nationalizing, expropriating, or otherwise seizing ownership or control of property of U. S. citizens or entities beneficially owned by them without taking steps to discharge its obligations.* **Panama has not taken such actions.**
6. FAA §.620(j). *Information whether the country permits, or fails to take adequate measures to prevent, the damage or destruction, by mob action, of U. S. property.* **Adequate measures by Panama have been and are being taken.**

7. FAA §.620(l). *Consideration which has been given to denying assistance to a government which after December 31, 1966, has failed to institute the investment guaranty program for the specific risks of inconvertibility and expropriation or confiscation.*
- Panama has signed and instituted such an agreement.
8. FAA §.620(o). *If country has seized, or imposed any penalty or sanction against, any U. S. fishing vessel on account of its fishing activities in international waters, consideration which has been given to denying assistance.*
- Panama has not taken any such action.
9. FAA §.620(q). *Existence of default under any FAA loan to the country.*
- At the time this paper was prepared, there was no default under any FAA loan to Panama.
10. FAA §.620(t). *Prohibition on aid if country has severed diplomatic relations with U. S., unless agreements have been negotiated after resumption of relations.*
- Not applicable.
11. FAA §.620(u). *Status of the country on delinquent U. N. obligations.*
- To the best of our knowledge, Panama is not delinquent on any U.N. obligations.
12. FAA §.209. *Information about multilateral assistance being furnished to the country.*
- Other international financial institutions are presently providing assistance to Panama. However, none wished to participate in the financing of this project.

13. FAA §.620(a); App. § 107(a) and (b). *Compliance with prohibitions against assistance to Cuba and any country (a) which furnishes assistance to Cuba or failed to take appropriate steps to prevent ships or aircraft under its registry from carrying equipment, materials, or supplies from or to Cuba; or (b) which sells, furnishes, or permits any ships under its registry to carry items of primary strategic significance, or items of economic assistance, to Cuba.*
- No assistance will be furnished under this loan to the present Government of Cuba, nor does Panama furnish assistance to such government. Panama has taken appropriate steps to prevent ships or aircrafts under its registry from engaging in any Cuba trade.
14. FAA §.620(b). *If assistance to a government, existence of determination it is not controlled by the international Communist movement.*
- Panama is not controlled by the international Communist movement; this has been determined by the Secretary of State.
15. FAA §.620(i). *Information on representation of the country at any international conference when that representation includes the planning of activities involving insurrection or subversion against the U. S. or countries receiving U. S. assistance.*
- No information exists regarding the representation of Panama at any international conference which included the planning of activities involving insurrection or subversion against the U.S. or countries receiving U.S. assistance.
16. FAA §.620(n); App. 107(b) and 116. *Compliance with prohibition against assistance to countries which traffic or permit trafficking with North Viet-Nam.*
- Panama does not traffic nor permit trafficking with North Vietnam.

Military Expenditures

17. FAA §.620(i). *Existence of determination that the country is engaging in or preparing for aggressive military efforts.*
- No determination has been made that Panama is engaging in or preparing for aggressive military efforts.

18. FAA §.620(s). *Information and conclusion whether country is devoting unnecessary percentage of budget for military purposes and using foreign exchange for military equipment.*

Panama is not devoting an unnecessary percentage of its budget for military purposes or using foreign exchange for military equipment.

19. App. §.119. *Information on reduction in assistance by amounts spent by country for the purchase of sophisticated military equipment.*

Panama has not purchased sophisticated military equipment.

CONDITIONS OF THE LOAN

General Soundness

20. FAA §.201(d). *Information and conclusion on legality (under laws of country and U. S.) and reasonableness of lending and relending terms of the loan.*
21. FAA §.251(b)(2); §.251(e). *Information and conclusion on activity's economic and technical soundness, including information on availability of an application together with assurances to indicate that funds will be used in an economically and technically sound manner.*
22. FAA §.251(b). *Information and conclusion on capacity of the country to repay the loan, including reasonableness of repayment prospects.*

AID development loans at terms similar to this loan have been made in Panama. The terms are both legal and reasonable.

This project is being developed with the participation of AID & the National Planning Office. Previous experience indicates that funds will be used in an economically and technically sound manner. The Ministry of Agriculture submitted a loan request in February, 1967. (See attached Annex).

There are reasonable prospects of repayment of this loan.

23. FAA §.611(a)(1). *Information and conclusion on availability of engineering, financial, and other plans necessary to carry out the assistance and of a reasonably firm estimate of the cost to the U. S. of the assistance.*

There are sufficient plans necessary to carry out this project and a reasonably firm estimate of cost.

24. FAA §.611(a)(2). *If legislative action is required within recipient country, basis for reasonable anticipation such action will be completed in time to permit orderly accomplishment of purposes of loan.*

Legislative borrowing authority must be secured. This legislation has been prepared and the USAID has been assured that this legislation will be enacted in the forthcoming assembly. This will be made a condition precedent in the loan agreement.

25. FAA §.611(e). *Compliance with requirement that Mission Director certify, with respect to projects estimated to cost over \$1 million, as to the country's capability effectively to maintain and utilize the project.*

See Section VII. This loan is a continuation of an on-going program. The GOP has displayed its ability to carry out the present program and the Mission believes that they have the capability to utilize this project.

26. FAA §.251(b). *Information and conclusion on availability of financing from other free-world sources, including private sources within the United States.*

Financing from other free-world sources, including private U.S. sources, is not available.

Loan's Relationship to Achievement of Country and Regional Goals

27. FAA §.207; §.251(a). *Extent to which assistance reflects appropriate emphasis on:*

a. *Encouraging development of democratic economic, political, and social institutions.*

This project will encourage development of democratic, economic, political and social institutions.

- b. *Self-help in meeting the country's food needs.* The growth in Panama's agricultural sector is among the highest in Latin America.
- c. *Improving availability of trained manpower in the country.* Effort is continually being made by the GOP and AID to improve local trained manpower. This project will help Panama meet its future professional manpower demand.
- d. *Programs designed to meet the country's health needs.* Not applicable.
- e. *Other important areas of economic, political, and social development, including industry; free labor unions, cooperatives, and voluntary agencies; transportation and communication; planning and public administration; urban development; and modernization of existing laws.* All of AID's assistance to Panama is designed to meet the needs of the sectors referred to in this section. This project is no exception.
28. *FAA §.251(b)(3). Information and conclusion on activity's relationship to and consistency with other development activities, and its contribution to realizable long-range objectives.* The Loan is consistent with other development activities and contributes to long range objectives. This is the continuation of a previous activity which was begun under loan 525-L-010 and is complementary to that program.
29. *FAA §.251(b)(7). Information and conclusion on whether or not the activity to be financed will contribute to the achievement of self-sustaining growth.* This project is an essential ingredient for the achievement of self-sustaining growth of Panama.

30. FAA §.281(a). *Extent to which the loan will contribute to the objective of assuring maximum participation in the task of economic development on the part of the people of the country, through the encouragement of democratic private and local governmental institutions.*
- The Loan will encourage maximum participation of community and local government institutions. Through activities of extension agents, adult education courses and expansion of vocational educational facilities for agricultural students.
31. FAA §.281(b). *Extent to which program recognizes the particular needs, desires, and capacities of the people of the country; utilizes the country's intellectual resources to encourage institutional development; and supports civic education and training in governmental skills.*
- The answer given to Item #30 above is equally applicable to this item.
32. FAA §.601(a). *Information and conclusions whether loan will encourage efforts of the country to: (a) increase the flow of international trade; (b) foster private initiative and competition; (c) encourage development and use of cooperatives, credit unions, and savings and loan associations; (d) discourage monopolistic practices; (e) improve technical efficiency of industry, agriculture, and commerce; and (f) strengthen free labor unions.*
- The Loan will eventually increase the flow of international trade, foster private initiative, and develop community action. It will certainly improve the technical efficiency of industry, agriculture and commerce.
33. FAA §.619. *Compliance with requirement that assistance to newly independent countries be furnished through multilateral organizations or plans to maximum extent appropriate.*
- Not applicable.

34. FAA §.251(h). *Information and conclusion on whether the activity is consistent with the findings and recommendations of the Inter-American Committee for the Alliance for Progress in its review of national development activities.*

This activity is consistent with the findings and recommendations of CIAP.

35. FAA §.251(g). *Information and conclusion on use of loan to assist in promoting the cooperative movement in Latin America.*

This project will actively promote cooperative development, (See Section III), by means of making credit available to agricultural coops and promotion of cooperative efforts for pilot irrigation projects.

36. FAA §.209; §.251(b)(8). *Information and conclusion whether assistance will encourage regional development programs, and contribute to the economic and political integration of Latin America.*

This project will increase agricultural production and export opportunities which will eventually contribute to economic integration.

Loan's Effect on U. S. and A.I.D. Program

37. FAA §.251(b)(4); §.102. *Information and conclusion on possible effects on U. S. economy, with special reference to areas of substantial labor surplus, and extent to which U. S. commodities and assistance are furnished in a manner consistent with improving the U. S. balance of payments position.*

Approximately 55% of the loan funds will be used for U.S. procurement. Long range requirements will promote the use of U.S. goods and services.

38. FAA §.601(b). *Information and conclusion on how the loan will encourage U. S. private trade and investment abroad and how it will encourage private U. S. participation in foreign assistance programs (including use of private trade channels and the services of U. S. private enterprise).*

The services of U.S. private trade will be demonstrated by this project promoting the expansion of U.S. private trade and services, through technical services from the U.S. and U.S. equipment purchases for the implementation of the project.

39. *FAA §.601(d). If a capital project, compliance with the Congressional policy that engineering and professional services of U. S. firms and their affiliates are to be used in connection with capital projects to the maximum extent consistent with the national interest.* U.S. firms and their affiliates will be used in connection with capital projects to the maximum extent consistent with national objectives. For engineering and professional services United States firms will be used.
40. *FAA §.602. Information and conclusion whether loan will permit U. S. small business to participate equitably in the furnishing of goods and services financed by it.* U.S. small business will be limited to participate in the provision of goods and services financed by this loan.
41. *FAA §.620(h). Compliance with regulations and procedures adopted to ensure against use of assistance in a manner which, contrary to the best interests of the U. S., promotes or assists the foreign aid projects or activities of the Communist-Bloc countries.* This project will not promote or assist foreign aid projects or activities of the Communist-bloc countries.
42. *FAA §.621. Information and conclusion on how the loan in providing technical assistance will utilize to the fullest extent practicable goods and professional and other services from private enterprise on a contract basis. If the facilities of other Federal agencies will be utilized, information and conclusion on whether they are particularly suitable, are not competitive with private enterprise, and can be made available without undue interference with domestic programs.* All technical assistance financed by this loan will be made available through contractual arrangements with a U.S. University or the USDA.

43. FAA §.252(a). Total amount of money under loan which is going directly to private enterprise, is going to intermediate credit institutions or other borrowers for use by private enterprise, is being used to finance imports from private sources, or is otherwise being used to finance procurements from private sources.

An estimated 40% of loan funds will be used to finance procurement from private sources. X

Loan's Compliance with Specific Requirements

44. FAA §.608(a). Information on measures to be taken to utilize U. S. Government excess personal property in lieu of the procurement of new items.
45. FAA §.604(a); App. §.108. Compliance with restriction of commodity procurement to U. S. except as otherwise determined by the President and subject to statutory reporting requirements.
46. FAA §.604(b). Compliance with bulk commodity procurement restriction to prices no higher than the market price prevailing in the U. S. at time of purchase.
47. FAA §.604(d). Compliance with requirement that marine insurance be placed in the U. S. on commodities financed by the loan if the host country discriminates against U. S. companies.

Previous experience made excellent use of excess property. It is planned to use the established procedures for the acquisition of excess property.

~~All commodity procurements will be conducted in the U.S.~~

Commodities may be procured in the U.S. All such imports shall be subject to the restrictions imposed by the U.S. Government and shall be subject to statutory reporting requirements.

Procurement under the loan will be by competitive bidding.

Marine Insurance will be procured in the U.S., where applicable.

48. FAA §.604(e). *Compliance with requirement that funds not be used for procurement of any agricultural commodity or product thereof outside the U. S. when the domestic price of such commodity is less than parity.* Funds will not be used for procurement of any agricultural commodity or product.
49. FAA §.611(b); App. §.101. *If water or water-related land resource construction project or program, information and conclusion on benefit-cost computation.* Not applicable.
50. FAA §.611(c). *Compliance with requirement that contracts for construction be let on competitive basis to maximum extent practicable.* All construction contracts will be awarded on the basis of competitive bidding.
51. FAA §.620(f); App. §.109. *Compliance with prohibitions against assistance to any Communist country.* This loan will not assist any Communist Country.
52. FAA §.620(g). *Compliance with prohibition against use of assistance to compensate owners for expropriated or nationalized property.* This loan will not be used to compensate owners for expropriated or nationalized property.

53. FAA §.612(b); §.636(h). Steps that have been taken to assure that, to the maximum extent possible, the country is contributing local currencies to meet the cost of contractual and other services, and that foreign currencies owned by the U. S. are utilized to meet the cost of contractual and other services.
- Appropriate steps have been so taken. The U.S. owns no local currencies that could be used for this project.
54. App. §.102. Compliance with requirement that payments in excess of \$25,000 for architectural and engineering services on any one project be reported to the Congress.
- This requirement will be met.
55. App. §.104. Compliance with bar against funds to pay pensions, etc., for military personnel.
- No loan funds will be used to pay pensions, etc., for military personnel.
56. App. §.106. If country attempts to create distinctions because of their race or religion among Americans in granting personal or commercial access or other rights otherwise available to U. S. citizens generally, application which will be made in negotiations of contrary principles as expressed by the Congress.
- No distinctions on the basis of race or religion will be attempted.
57. App. §.111. Compliance with requirements for security clearance of personnel.
- All such personnel will be cleared.
58. App. §.112. Compliance with requirement for approval of contractors and contract terms for capital projects.
- This requirement will be met.

59. App. 8.114. *Compliance with bar against use of funds to pay U.N. assessments, etc.* Funds will not be used to pay U.N. assessments, etc.
60. App. 8.115. *Compliance with regulations on employment of U. S. and local personnel for funds obligated after April 30, 1964 (Regulation 7).* Regulation 7 will be complied with.
61. FAA 8.636(i). *Prohibition on financing non-U. S.-manufactured motor vehicles.* Loan funds will not be used to finance non-U.S. manufactured motor vehicles.
62. App. 8.401. *Compliance with bar against use of funds for publicity or propaganda purposes within U. S. not authorized by the Congress.* Loan funds will not be used for publicity or for propaganda purposes within the U.S.
63. FAA 8.620(k). *If construction of productive enterprise where aggregate value of assistance to be furnished by U. S. will exceed \$100 million, identification of statutory authority.* Not applicable.

Ministry of Agriculture, Commerce and Industries
Department of Animal Quarantine

ANNEX II
EXHIBIT 2 /
page 1 of 4

TRANSLATION:drg

Panama, May 17, 1968

Mr. Thomas O. Stephens
Rural Development Officer
Panama

Mr. Stephens:

The livestock industry in Panama, which is considered its largest industry, is valued at approximately \$300,000,000. This industry is in the hands of small producers and is increasing every day in quantity and quality. Consistent with this increase, producers also expect an improvement in the services being offered by the laboratory, which would include a limited capacity for the research of animal diseases and the preparation of vaccines, as well as the control of the quality of these imported products. The laboratory is presently located at Panama Viejo and it has been absorbed by the growth and expansion of the city. Taking into consideration that many organisms which are handled in the laboratory are capable of causing disease to human beings and that they could spread to this densely populated area where sanitary conditions are at a low level, this will bring catastrophic effects. Also, the actual laboratory building is inadequate for the work that we are carrying on at present.

The relocation of the laboratory facilities on the proposed site near the Tocumen International Airport will offer a modern laboratory which will give improved services and will be located in an area that will not be absorbed by the expansion of the city in the near future. The present laboratory building could be used by the Ministry of Agriculture for other purposes.

Services Offered by the New Laboratory:

1. Diagnosis:

a. Will serve as a central reference laboratory to diagnose specimens received from veterinarians from other sections of the country.

b. Will give diagnostic laboratory facilities to slaughterhouses assuring in part a sanitary product for consumption.

2. Research

The laboratory will be used to investigate, on a limited basis, problems of diseases that are presently causing great losses, and to identify and evaluate conditions which have been recently introduced or found.

3. Research Animals

a. To maintain a limited number of large animals to be utilized in inoculation tests and to help in the diagnosis of diseases in the field.

b. To maintain a number of small animals for diagnosis and experiments.

4. Vaccines

a. To control quality of imported vaccines.

b. To prepare vaccines on an experimental basis for those diseases for which vaccines cannot be commercially obtained, and when the need justifies to produce sufficient quantities of vaccine for veterinary use.

5. Inspection and Quarantine

This component is required in connection with modern means of transportation and will serve to make available a quarantine facilities for animals arriving at the Tocumen Airport, with the view of identifying animals which are being transported during the incubation period of a disease.

This station would be located in a separate site from the diagnostic and research laboratory.

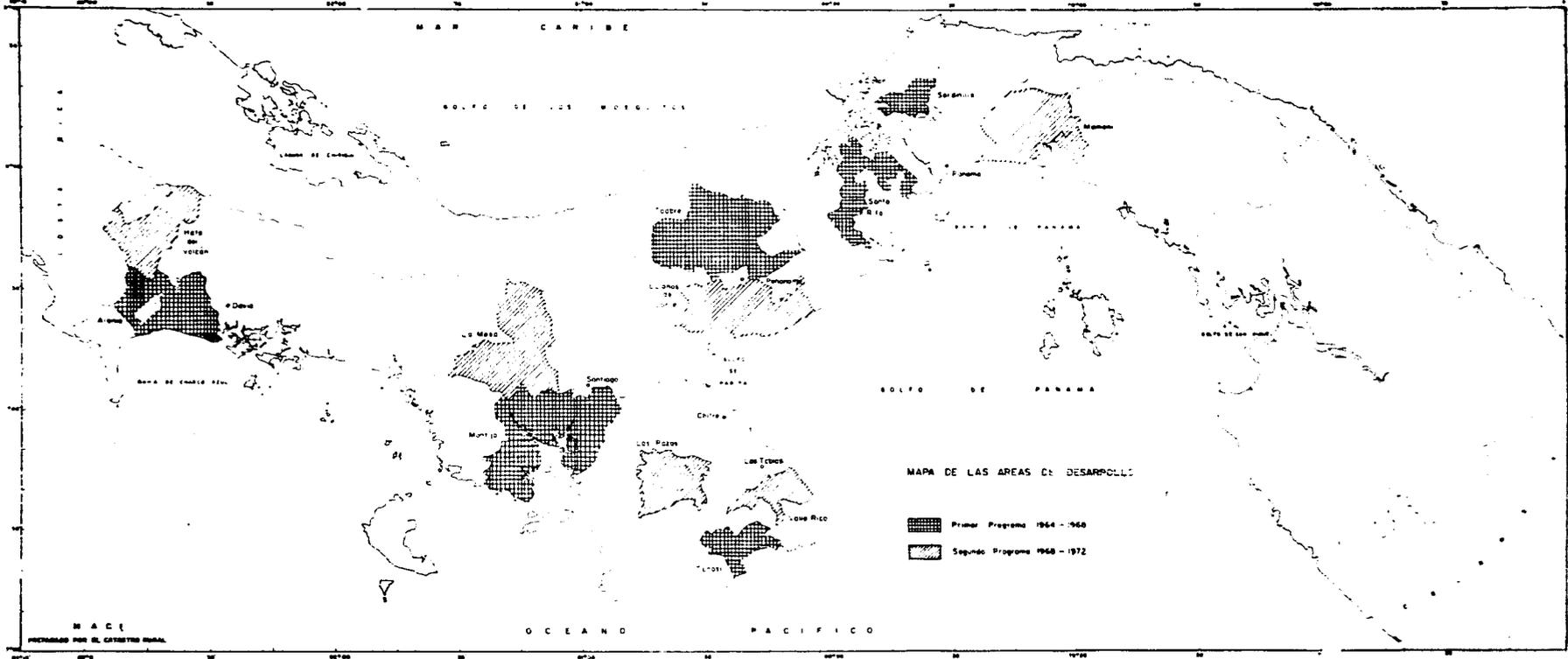
6. Cooperation with the School of Agriculture

The School of Agriculture will be located in the same area of Tocumen. The new veterinary laboratory of the Ministry of Agriculture will make its facilities available for laboratory research carried out by students in senior classes.

cc: Minister
Ing. Ocaña
Maj. Kovatch

Dr. Gerardino Medina H.
Veterinary Advisor - Director of
the Diagnostic and Research
Veterinary Laboratory

REPUBLICA DE PANAMA



EVALUATION OF A. I. D. LOAN No. 525-L-010

Introduction

The Agricultural Development Loan 525-L-010 agreement was signed on October 1, 1964 and the date on which disbursements were terminated was March 31, 1968. Due to the short period of time elapsing since the implementation of this loan, the evaluation of its effects in the rural areas would be highly subjective as well as difficult. As yet there are no data which might be used to show the effect of this AID Loan and the concomitant GOP contribution on agricultural development. Even if there were data, identification of the effects of this loan, which are mingled with those of other on-going GOP programs, would not be easy to achieve. Some elements of the loan, such as the pure seed program and the farm machinery center, may be linked directly with progress in seed production and distribution and the increasing use of farm machinery, but more time will be required to point this out in specific terms. What this loan sought to do was allow GOP to move much faster in providing agricultural extension, introduction of mechanization, distribution of improved seeds, and in widening the base of farmers receiving credit. It should be taken as a matter of faith that all these things, even with imperfections in their organization and administration, are necessary for the acceleration of rural progress and that ultimately they will vindicate themselves as they have in other countries.

It is possible to make an evaluation of the way the loan project was organized and implemented. This has been done and USAID's comments are found on following pages. The evaluation is a preliminary one, making considerable use of the information provided by Borrower in its final report. All of the attachments (see list on following pages) are taken from the final report.

It is important to note that the 010 loan provided a point of departure for GOP to make some of its own evaluations and judgments on such matters as coordination among its various agencies involved with the development of rural areas, its real attitude toward the campesino farmer, and such problems as market structure and price supports. At the very least, this loan project initiated the necessary dialogue.

I. Purpose of the Activity

The purpose of this development loan project was to improve the lot of the subsistence farmer in Panama by providing improved government services specifically through the expansion and improvement of agricultural extension services, agricultural credit, and vocational education. Thus, this activity was directed to the subsistence farmer within the priority areas and to the small livestock farmer, both within and outside the priority areas.

II. Background of the Activity

In previous years the United States had aided the agricultural research and extension services in Panama. In recent years the dissemination of knowledge, more than the development of research, became the limiting factor to rural progress. Obstacles to the dissemination of knowledge have been varied, but chief among these was the lack of funds and facilities by the Ministry of Agriculture for the new priority rural development areas of Panama. To remedy this lack the Ministry of Agriculture submitted a Loan Application to A.I.D. in October 1963, to finance new facilities, but consideration of the loan was postponed by the disruption of diplomatic relations in January 1964.

With the resumption of diplomatic relations in April of 1964 and a gradual easing of tensions between Panama and the United States, consideration of the rural development loan application was renewed. President-elect Robles, who was carried to victory by the rural areas of the country, pledged himself to a dynamic program of rural development. The loan agreement was finalized on the day of his inauguration on October 1, 1964.

III. Description of the Activity

The project was designed to improve agricultural and livestock production by providing the buildings and equipment necessary to carry out a more extensive technical assistance program in specific underdeveloped rural areas in Panama; and by providing funds for supervised credit to livestock producers. Specifically the loan was to finance:

- a. The provision of building and equipment facilities in six areas, selected by the Panamanian government for intensive coordinated economic and social development.
- b. The provision for these six areas of marketing sheds, agricultural equipment for custom work in land preparation and crop production and harvesting; and improved seed for testing and distribution.
- c. The purchase of additional equipment for the National Agricultural School located at Divisa.
- d. The establishment of a special fund for supervised credit to livestock producers following coordinated livestock and pasture management plans to finance the purchase of quality breeding bulls, artificial insemination, pasture improvement and supplemental feeding, and livestock water development.
- e. The provision of three U.S. experts to serve as general field advisors, with particular reference to supervised credit.
- f. See Attachment 24 for the balance sheet of the various activities financed by the loan.

IV. Implementation of the Project

A. Project Management

The administration of this project is generally considered to be very good. USAID Audit Report No. 68-6 dated November 30, 1967 states the following:

"The spirit of the Alliance caught by both USAID and MACI personnel generated a warm cooperative effort. As a result, overall administration has been quite satisfactory. Conformance with the provisions of the Loan Agreement and applicable A.I.D. directives has generally been good. The resultant accomplishments, although not without problem areas, has been quite successful."

The Government of Panama, through its Ministry of Agriculture did two things that undoubtedly contributed to effective,

timely administration of the project. First, they appointed a capable, qualified team to negotiate the Loan Agreement with A.I.D. The team consisted of representatives of the Ministry of Agriculture, the National Planning Office, the Controller General of the Republic, the Agrarian Reform Agency and Legal Counsel. Although this team had had very little or no experience with development loan projects, in this case it was probably an advantage rather than a disadvantage because it meant that the Loan Agreement had to be discussed word for word. When the negotiations were complete all parties understood the project and their collective and individual responsibilities as well. Secondly, the Ministry of Agriculture organized, appointed and maintained a project management team which was given specific responsibility for the conduct of this project. This team consisted of a project manager, a business manager, an accountant, a project engineer and two draftsmen, a translator, and a secretary. Other Ministry personnel assisted during peak workload periods.

B. Conditions Precedent

The Loan Agreement contained five areas of conditions precedent, and this five areas covered a total of 15 conditions that had to be met.

- (1) Conditions precedent to initial financing - These outlined the conditions related to (a) evidence of authority and designation of borrower representatives, (b) reports on fees and commissions, (c) budgetary allocations, (d) project manager, (e) non-taxation of goods and services, and (f) legal opinion concerning borrower obligations.

The above conditions precedent were satisfied on January 18, 1965, 18 days later than the final date specified in the Loan Agreement.

- (2) Additional conditions precedent - Extension Support - These conditions precedent pertained to: (a) a time phased analysis, (b) real property rights, (c) plans, specifications and schedules, (d) procurement of other items, and (e) evidence of arrangements for construction services and procurement.

The above conditions precedent were satisfied on

November 24, 1965 approximately 10 months after the original date specified in the Loan Agreement for meeting these conditions.

- (3) Additional conditions precedent - Divisa - These conditions precedent pertain to: (a) assurances of rehabilitation of the Divisa Station, (b) description of items to be procured and provisions for procurement maintenance, and (c) use of items at Divisa.

The above conditions precedent were satisfied on November 24, 1965 approximately 10 months after the original date specified in the Loan Agreement for meeting these conditions.

- (4) Additional conditions precedent - Livestock Credit - These conditions pertain to: (a) policies, procedures and basic rules for administering livestock credit, (b) arrangements between MACI and IFE for carrying out the project, (c) arrangements for IFE to provide certain banking functions, and (d) private sector credit arrangements for the purchase of equipment by private firms for well drilling and the construction of stock pounds.

The above conditions precedent were satisfied on February 17, 1965, 17 days after the original date specified in the Loan Agreement to meet these conditions.

- (5) Additional conditions precedent - Technical Advisor Services - These conditions precedent pertain to evidence of suitable arrangements for such services.

This condition precedent was satisfied on February 17, 1965, 17 days after the original date specified in the Loan Agreement to meet this condition.

In no case were the conditions precedent met according to original dates specified in the Loan Agreement. However, three sets of the conditions precedent were satisfied some 17 or 18 days after the date specified in the Loan Agreement. Considering the lack of experience of the project management it is felt that an honest effort was made to meet these dates and that the implementation of the project did not suffer as a result of these delays.

The conditions precedent for the extension support and Divisa components were met some ten months after the original dates specified by the Loan Agreement. This did delay the implementation of these two components. However, it should be pointed out that the dates specified for these two components were not realistic in that sufficient time was not allowed to complete the work necessary to satisfy these conditions. Also, notwithstanding a delay of ten months the time frame of the project as a whole did not suffer as the project was completed as originally specified in the Loan Agreement.

C. Procedures for Construction and Procurement

All items, goods and services acquired for this project and financed by this loan were obtained through public bids, meeting the requirements of the Panamanian fiscal code and the requisites of A.I.D. Implementation letters, particularly implementation letter number one and its attachments, established the necessary guidelines together with bid specifications for each and every item.

Goods and services to be acquired under the loan were in each case presented to the USAID for prior approval. Once approved, invitations to bid were announced for a given date and hour.

Bids for the procurement of goods were always accompanied by a "Manual for Procurement". Likewise, bids for the construction of institutional buildings were accompanied by a "Manual for Construction". Both manuals were prepared with the help of the USAID.

Procurement was made by competitive secret bid. Both U.S. and Panamanian suppliers were eligible to bid. The office of Small Business in Washington, D.C. was informed pursuant to each proposed procurement of loan financed goods. Also, construction contracts were sent to the Commerce Business Daily for announcement and publicity in the U.S.

The Minister of the Treasury or his authorized representative presided over all bid openings. Bidders, a representative of the Comptroller General's Office and a representative of the Ministry of Agriculture also attended the bid openings.

An initial award was made to the lowest bidder at the time

of the bid opening. Afterwards, however, a detailed technical examination of the proposal was undertaken to determine the merit of the bid. If justified, the initial award was finalized with the USAID approving both the contract and the contractor.

To meet the legal requirements of Panama's fiscal code, final bid awards were confirmed by a ministerial resolution. The contract was then subject to the approval by the Minister of Agriculture, the Comptroller General, the President of the Republic and the contractor.

Sixty-seven bids were called for, 239 bidders participated and 157 contracts were awarded under the above procedure. For additional details on procurement see Attachments 18, 19, 20, 21, and 23.

V. Project Components

A. Extension Support

The principal objective of this activity was to increase and intensify agricultural technical assistance to farmers through a series of institutional buildings and physical facilities, properly equipped and staffed, to bring about increased agricultural production.

Thirty-one (31) institutional buildings, financed by this loan, were built in 17 different communities within the six priority areas. These buildings are identified as:

Agricultural Extension Offices	10
Regional Office Headquarters	6
Living Quarters	6
Marketing Receiving Centers	3
Warehouses and Workshops	<u>6</u>
Total	31

Each extension office is staffed with an agricultural extension agent, a home demonstration agent, a 4-S Club agent (Rural Youth), and a secretary.

The regional office headquarters are staffed with: an area

coordinator, an administrative officer, a veterinarian, an animal husbandry technician, a cooperatives technician, and one or more agronomists.

Living quarters for bachelors were constructed at each of the regional headquarters offices to support the staff in isolated areas.

The Marketing Centers receive, clean, select, grade and pack fruits and vegetables for shipment to consumer markets. These Marketing Centers are not as yet operating at full capacity due mainly to restrictions in the overall marketing system.

The warehouses and workshops include small capacity storage for improved seeds and other inputs such as fertilizers and pesticides. The workshops include tools for the repair and maintenance of agricultural machinery and implements, and vehicle maintenance for the Agricultural Extension service.

B. Vocational Education

Two buildings were constructed at the National Agricultural Institute located at Divisa. These buildings were for an improved seed processing center and a pilot custom farm machinery center.

Agricultural machinery, tools and equipment were acquired for teaching and research activities carried out at this institution.

This component was delayed approximately ten months from the original implementation date. This delay resulted from the covenant that this Ministry of Agriculture would accomplish a substantial rehabilitation of the existing facilities located at this institution. This included building and equipment repair, staffing and making operational other facilities. The Ministry of Agriculture completed this rehabilitation with its own resources and no loan financed activity was implemented until the rehabilitation was complete. Considering the forces that had to be mustered and the amount of work that had to be completed the 10-month delay is not considered excessive.

C. Pilot Farm Machinery Rental Project

Attachments 6, 6A-1, 6A-2 and 6-B refer to operations of

the machinery rental project at Divisa. Attachment 6-B is a schedule of the rates that are being charged; attachment 6 shows the bank balance for the project. The other attachments (6A-1 and 6A-2) describe the service, how it is administered and who may use it. The service, it may be noted, is limited to farmers who operate what might be described as a family farm.

From field visits to the activity it can be determined that the machinery is in good demand, is being well maintained and shows good indications of fulfilling its purpose. This purpose, as originally conceived, was the introduction of the practice of custom rentals which, when eventually made profitable, would be taken over by private enterprise once GOP had demonstrated the farmer demand and types of machinery which would be most useful.

D. Livestock Credit

A total of \$965,000 of loan funds were allocated for this activity. This amount was disbursed to small farmers through subloans for livestock improvement. These subloans included the financing of improved breeding stock, stock water development, pasture improvement, and livestock feed production.

An agreement was made between the Ministry of Agriculture (MACI) and the Institute for Economic Development (IFE) whereby the MACI would provide intensive technical assistance to the borrowers and IFE would provide the banking facilities to the same farmers. Under this agreement the MACI provided the supervision of this credit activity through its agricultural extension personnel.

Two thousand eight hundred eleven (2,811) subloans totaling \$836,000 had been made as of April 29, 1968. These subloans financed 669 bulls, 74 water wells for livestock, 19,741 hectares of improved pasture, and 1,450 heifers. The average size of the subloan is \$324. The average size of the farm receiving subloans is 41 hectares. The average gross income for these borrowers is \$1,084. (For more details see Attachments 7, 7A, 8, 9, and 10).

In addition to the original subloans, \$213,000 has been loaned from repayments. The total portfolio available for lending in the future now approximates \$1,050,000. Further growth in these funds seems assured.

The initiation of the livestock credit program was not easy. The MACI extension personnel were not trained as supervised credit agents and therefore had to acquire experience in credit

operations. The subloans were limited to subsistence farmers who were inherently afraid of credit and do not understand its uses. An active publicity campaign was carried out using radio broadcasting stations, rural movie theaters, mobile audiovisual units, and local newspapers. (See Attachment 7C). In general, the animal husbandry technicians of the Ministry of Agriculture were used as supervised agricultural credit agents.

The rate of overdue loan repayments is fairly high, now estimated at 12% of the amount of money lent. This lack of repayment can be attributed to: (a) the lack of understanding of credit by the borrowers, in this case subsistence farmers, (b) the lack of experience and insufficient numbers of supervised credit agents, and (c) adverse weather conditions that affected pasture improvement and livestock feed production. Uncollectibles are unknown.

Notwithstanding the repayment problem outlined above, the overall results of this activity are considered good. This program has reached and is helping improve the lot of the small subsistence farmers and is providing him with resources heretofore unavailable to him. This is Panama's first attempt at supervised credit and the importance and need for a continuing activity of this type has now been established.

E. Technical Advisory Services

This activity was to insure the implementation of agricultural development activities by providing three U.S. technicians to serve as general field advisors, with particular reference to supervised credit.

This technical assistance was never acquired. The dynamic approach to the implementation of this project by the Ministry of Agriculture and the acquisition by IFE of contract technical assistance in supervised agricultural credit negated the need for additional technical assistance in supervised agricultural credit at this time. The project management requested that the \$125,000 of loan funds allocated for this activity be transferred to support other activities of the loan and the USAID agreed.

Pure Seed Program

This activity was added to the four original activities

contemplated in the Loan Agreement.

Prior to 1966, two different Panamanian agencies were concerned with seed production. IFE was engaged in the production and distribution of improved rice seed, and the MACI was working with corn and cowpea seed. The administration of both agencies agreed to merge the two programs, and assign the responsibility to the MACI. Consequently, utilizing part of the loan funds originally assigned to vocational education (\$270,000) a seed processing plant was built. This plant includes equipment for drying, cleaning, grading, testing and storing of seed material.

The reproduction of improved seed from basic or registered seed is contracted to qualified farmers who are supervised by MACI agronomists.

A revolving fund of \$100,000 was established to finance the purchase and resale of improved seeds to farmers. The bank balance, accounts receivable and value of the inventory as of April 30, 1968, was \$169,455.44 (Attachments No. 12, 13 and 15). Attachment 14 shows the growth of the program from August, 1967 to April, 1968.

Technical assistance from Mississippi State University was acquired to design, supervise, and install equipment of the pure seed center.

This program is operating very well. However, it is now apparent that available storage is not sufficient at the seed processing plant to handle the volume of improved seeds required. Also, additional storage for sale and distribution is needed at two more locations in the country. An additional storage facility is suggested for location in the Chiriqui Province to cover the western area of Panama, and another seed storage facility located in the vicinity of Capira to cover the eastern area of Panama.

Attachment No. 1 to this annex gives a breakdown of the initial and final allocations of loan proceeds among five activities. By making use of the contingency fund and the funds originally estimated it was possible to complete the various activities in the manner originally planned. Additional details on construction, installation and procurement costs, estimated and actual, and the

use of the contingency fund are found in Attachments 3, 3A, 3A-1, 3A-2, 3A-3, 4, 5, 5A, 5B, 16 and 24).

VI. Miscellaneous

A. Reports

The project management submitted quarterly reports as required by the Loan Agreement. These reports were comprehensive and satisfactory in every respect.

B. Publicity

This project was energetically publicized. It became "Plan Robles", named after President Robles, and the project was identified as his plan for development in the rural areas. Newspaper publicity is well documented and includes editorials, articles and paid advertisement up to and including double page ads.

C. Marking Requirements

The project management placed and maintained "Hand-clasp" and the Alliance for Progress emblems on all vehicles, buildings, and major equipment for the project. Also all loan financed goods and shipping containers were properly marked with the same emblems.

D. Review of Price Support Policies

The borrower agreed to undertake a comprehensive review of its agricultural price support policies and practices with a view toward improvement therein. This covenant was not satisfied.

The borrower did acquire the services of a foreign agricultural economist and he produced two studies on the price structure of rice. These studies are considered fairly good for this one commodity. Also, the government of Panama contracted for a marketing feasibility study. This study did discuss pricing policies and practices but did not treat this area in sufficient depth to satisfy this covenant of the Loan Agreement.

These studies are difficult to achieve in the absence of a

comprehensive agricultural policy. However, these studies are considered necessary and it is recommended that future programs, both loan and grant, continue to stress this area and work towards compiling the necessary information and implementing desired changes.

E. Inter-Agency Coordination

The loan agreement anticipated problems of inter-agency coordination by including a special covenant on coordination. That was Section 6.1(g) of the loan agreement which specified that the "Borrower shall provide within the government of Panama an effective coordinating authority for the entire agricultural development program in Panama... and shall report to AID no later than December 31, 1965 on its progress..."

On April 6, 1965, President Robles established a coordinating commission for agricultural development. The commission was made up of representatives of seven of the GOP agencies involved in the development of the six priority areas. It was to meet once a month with the intent of coordinating and synchronizing planning. The commission met only six times and never did achieve a high degree of efficiency. Executive Decree No. 56 of June 21, 1967 created a new system of coordination and execution of rural development programs, with the burden for coordination falling mainly on the National Planning Office. Although coordination is not fully effective, still there was progress in this direction during the course of the implementation of this 010 loan.

VII. Excess Property

In keeping with AID's emphasis on the use of excess property to the maximum extent practicable, MACI was encouraged to put this resource to the fullest prudent use in the development project for which Loan 010 was authorized. By joint agreement, \$60,000 was set aside from the loan proceeds to finance the service and freight costs of Section 608 rehabilitated excess items. Not all of the items originally requested through that source were ultimately available - however, approximately \$35,000 of Loan 010 funds were used (see Attachments 17 and 19), resulting in delivery to the project of rehabilitated excess mechanical items (trucks, jeeps, generators, compressors, etc.) which originally cost the U.S. over \$200,000.

By and large the transaction went well and the equipment is making a useful contribution to the project, although there were some problems attached to the billing procedure established by AID/W, and a few early complications connected with obtaining proper logistical support for the mechanical items. However, the net result of the Section 608 exercise was favorable to project fulfillment, and resulted in "stretching" the effectiveness of the loan proceeds.

Another material input into the project is represented by transfers to the project of Canal Zone-generated excess property with an original acquisition cost to the U.S. totalling over \$900,000. This property, made up of many different classes of both major and support items, bolstered the other U.S. contributions at no out-of-pocket cost to AID, since MACI assumed the obligation of transporting and repairing the items prior to putting them to project use. The MACI has developed an efficient inventory and warehousing system, not only for the control of major items, but as well for the handling and issuance of spare parts and other support items. MACI has fulfilled in timely and proper fashion the reporting, marking, and other statutory requirements of AID with regard to excess property transactions.

VIII. GOP Contribution

Attachment 4A presents the GOP contribution to the project. Contributions by the various GOP agencies included agricultural credit, land reform activities, water systems, electric systems, health services and schools. The total GOP investment during the 3 years (approximately) that this loan has been in effect totals \$3,671,558.

LIST OF ATTACHMENTS

<u>Attachment Number</u>	<u>Title</u>
1	Allocation of Loan Funds
2	Sites Donated to the Project in Relation to Activity 1, Extension Support by size of site and use
3	Extension Support, by areas and kind of investment
3-A	Capital Investment by Cost and Type of Buildings
3-A1	Capital Investment by Cost and Type of Buildings in Alanje
3-A2	Capital Investment by Cost and Type of Buildings in Tonosí
3-A3	Capital Investment by Cost and Type of Buildings in Montijo
4	Installation cost of Power and Water Facilities for New Institutional Buildings
4-A	GOP Contribution to the Project and its Distribution to Loan Activities
5	Capital Investment by Cost and Type of Buildings, Activity 2, Divisa
5-A	Sites Donated to the Project in Relation to Activity 2 - Divisa
5-B	Kind of Investment for Activity 2 - Divisa
6	Pilot Mechanization Center - Bank Balance

- 6-A1** Pilot Mechanization Center - Internal Administration
- 6-A2** Pilot Mechanization Center - Rules and Regulations governing the Service to Farmers
- 6-B** Pilot Mechanization Center - Schedule of Charges for Service
- 6-C** Pilot Mechanization Center - List of Equipment
- 7, 7-A, 7-B** Sub-loans Granted Under the Livestock Credit Program, IFE-MACI-AID as per Accumulated Reimbursement Summary, as of March 27, 1968
- 7-C** Contracts for livestock credit Program Publicity
- 8** Value of Sub-loans under Livestock Credit Activity from Original Loan Fund and Repayments
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- 10** Repayments to Sub-loans under Livestock Credit Activity by Months up to April, 1968
- 11** Letter from Director of Extension Service to MACI Technicians on Subject of Criteria for Selection of Farmers for Sub-loans in the Corn and Cowpea Program
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by Type of Disbursement**
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Initial \$350,000 Revolving Fund Established
from Original Proceeds, AID Loan 525-L-010**
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Under Loan Agreement**
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Loan Agreement**

Attachment 1

Ministry of Agriculture, Commerce and Industries

Project of Agricultural Development

A.I.D. Loan No. 525-L-010

<u>Allocation of Loan Funds</u>		<u>Initial</u>	<u>Final</u>
		2,400,000	2,400,000
<u>Activity 1.</u>	<u>EXTENSICN SUPPORT</u>	960,000	960,000
Subproject	ALANJE	236,000	
Subproject	TONOSI	99,525	
Subproject	TOABRE	158,775	
Subproject	SANTA RITA	211,125	
Subproject	SARDINILLA	104,975	
Subproject	MONTIJO	149,600	
<u>Activity 2.</u>	<u>DIVISA</u>	270,000	270,000
	Machinery and equipment for the National School of Agriculture and the Experimental Center	70,000	
	Facilities for developing improved seed varieties	25,000	
	Machinery and equipment for a custom farm machinery pool	175,000	
<u>Activity 3.</u>		940,000	965,000
	Purchase of Bulls	480,000	325,000
	Artificial Insemination	20,000	---
	Pasture Improvement	140,000	200,000
	Stock Water	300,000	100,000
	Ranch Improvements	---	125,000
	Corn and Cowpea	---	160,000
	Heifers	---	55,000
<u>Activity 4.</u>	<u>TECHNICAL ADVISORY SERVICES</u>	125,000 ^x	---
<u>Activity 5.</u>	<u>PURE SEED PROGRAM</u>	---	100,000
<u>Contingency</u>		105,000	105,000

^x \$100,000 allocated to the Pure Seed Program and B/ 25,000 to Livestock Credit.

Ministry of Agriculture, Commerce and Industries

Agricultural Development Project

AID Loan No 525-L-010

ANNEX II

EXHIBIT 49

Attachment No 2

page 1 of 2

Sites Donated to the Project in Relation to Activity I

Extension Support by Size of Site and Use

<u>AREA</u>	<u>COMMUNITY</u>	<u>DONOR</u>	<u>SIZE OF SITE</u>	<u>USE</u>
Alanje	Alanje	Municipality	2 Has. + 1,266.83 m ²	Central Office, Marketing Center, Bachelors' Quarters, Warehouse and Workshop, and Extension Office plus Seedling Nursery
	Sta. Marta	Comisión de Reforma Agraria	4,936.20 m ²	Extension Office
	Progreso	José Félix Espinosa	800 m ²	Extension Office
Tonosí	Tonosí	Municipality and Elida vda. de Peck	1 Ha. + 2,676 m ²	Central Office including Extension Office, Bachelors' Quarters, Warehouse and Workshop, and Seedbeds
	Tonosí	Municipality	2 Has.	Experimental Station, Seedbeds and Seedling Nursery
Toabre	Penonomé	Inst. de Fom. Econ.	6,271.97 m ²	Central Office, Warehouse & Workshop
	Cajito	Fortunato Bernal and Eulogio López	3,842.09 m ²	Marketing Center
	Toabre	Comisión de Reforma Agraria	5,479.70 m ²	Bachelors' Quarters and Extension Office
	La Pintada	Generoso Carles and Municipality	1,109.65 m ²	Extension Office
	Penonomé	Inst. de Fomento Económico	4,050 m ²	Grain Laboratory

BEST AVAILABLE COPY

AREA	COMMUNITY	DONOR	SIZE OF SITE	USE
Sta. Rita	Capira	Municipality	8 Has. + 8,466.19 m ²	Central Office, Warehouse and Workshop, Bachelors' Quarters, Experimental Station and Seeding Nursery.
	San Carlos	Familia Vega Méndez	1,880.47 m ²	Extension Office
	San Carlos	Holda Ponce vda. de Arze	2 Has. + 0473.17 m ²	Experimental Station
	El Valle	Ministerio de Hacienda y Tesoro	8,484.41 m ²	Marketing Center
Sardinilla	Buena Vista	Ministerio de Agricultura, Comercio e Industrias	5,575 m ²	Central Office including Extension Office, Warehouse and Workshop, and Bachelors' Quarters.
	Sardinilla	Daniel Centeno	6 Has. + 0699.68 m ²	Extension Office and Experimental Station
Montijo	Montijo	Municipality	2 Has. + 1003 m ²	Central Office including Extension Office, Warehouse and Workshop, Bachelors' Quarters and Seeding Nursery
	Soná	Municipality	3,476.51 m ²	Extension Office and Seedbeds
	Río de Jesús	Municipality	1,900 m ²	Extension Office
	Ponuga	Comisión de Reforma Agraria	1,868.42 m ²	Extension Office

Panama, March 31, 1968

Ministry of Agriculture, Commerce and Industries
 Agricultural Development Project
 AID Loan N° 525-L-010

Activity 1. Extension Support
By Areas and Kind of Investment

	<u>TOTAL</u>	<u>ALANJE</u>	<u>TONOSI</u>	<u>TOABRE</u>	<u>STA. RITA</u>	<u>SARDINILLA</u>	<u>MONTIJO</u>
<u>Total</u>	<u>1,057,547.51</u>	<u>230,256.08</u>	<u>122,507.57</u>	<u>209,430.97</u>	<u>197,378.23</u>	<u>122,929.35</u>	<u>175,045.31</u>
	<u>589,489.98</u>	<u>125,930.48</u>	<u>62,560.00</u>	<u>127,805.00</u>	<u>95,415.00</u>	<u>68,696.00</u>	<u>109,083.50</u>
<u>Buildings</u>							
Central Offices	104,730.50	20,030.00	17,560.00	15,877.00	17,276.50	14,918.00	19,069.00
Warehouse, Workshop & Service Station	180,078.00	44,183.00	27,729.00	38,400.00	20,210.50	26,978.00	22,577.50
Bachelor's Quarters	91,375.00	16,535.00	17,271.00	11,500.00	15,716.00	12,700.00	17,653.00
Extension Offices	119,320.00	23,715.00	---	18,599.00	13,122.00	14,100.00	49,784.00
Marketing Center	77,286.48	21,467.48	---	26,729.00	29,090.00	---	---
Grain Laboratory	16,700.00	---	---	16,700.00	---	---	---
<u>Equipment</u>	<u>348,606.40</u>	<u>74,879.03</u>	<u>41,247.04</u>	<u>64,186.39</u>	<u>82,412.68</u>	<u>39,470.00</u>	<u>46,411.26</u>
Laboratory Equipment	13,137.37	9,050.36	1,386.75	1,889.75	810.51	---	---
Agricultural Machinery	93,737.73	22,144.00	14,517.00	16,609.00	14,278.73	13,094.50	13,094.50
Agricultural Equipment	47,157.91	4,355.48	7,002.55	6,163.65	7,907.62	9,286.44	12,442.17
Refrigeration Equipment	14,411.67	2,770.55	1,324.00	3,122.00	4,687.12	1,254.00	1,254.00

ANEX II
ANEXO 4)

Attachment N° 3 Cont

page 2 of 2

<u>Equipment (Cont.)</u>	<u>TOTAL</u>	<u>ALANJE</u>	<u>TONOSI</u>	<u>TOABRE</u>	<u>STA. RITA</u>	<u>SARDINILLA</u>	<u>MONTIJO</u>
Office Equipment	24,634.05	4,996.70	1,524.50	6,210.50	5,442.35	2,695.50	3,764.50
Tools & Equipment for the Workshop	42,641.86	8,787.66	6,568.83	6,968.46	8,160.85	6,078.03	6,078.03
Office & Field Equipment	12,953.76	3,049.67	3,038.04	2,803.20	1,727.20	---	2,285.65
Equipment for Packing Fruits and Vegetables	54,925.19	13,535.90	---	13,531.54	27,857.75	---	---
Office & Household Furniture	27,305.72	6,188.71	3,135.37	4,642.80	4,570.70	3,715.63	5,052.51
Irrigation Equipment	17,701.14	---	2,700.00	2,245.49	6,969.85	3,345.90	2,439.90
<u>TOTAL</u>	<u>119,451.13</u>	<u>29,446.57</u>	<u>18,700.53</u>	<u>17,439.58</u>	<u>19,550.55</u>	<u>14,763.35</u>	<u>19,550.55</u>
<u>Vehicles</u>							
Trucks	16,413.05	3,282.61	---	3,282.61	3,282.61	3,282.61	3,282.61
Station Wagon	15,589.56	7,794.78	3,897.39	3,897.39	--	---	---
Pick-Up Truck	13,156.00	6,578.00	3,289.00	3,289.00	---	---	---
Jeep Scouts	52,926.40	9,641.20	7,247.60	4,820.60	12,001.40	7,214.20	12,001.40
Sedans	21,366.12	2,149.98	4,266.54	2,149.98	4,266.54	4,266.54	4,266.54

Panama, March 31, 1968

Ministry of Agriculture, Commerce and Industries
 Project of Agricultural Development
 AID Loan No 525-L-010

Capital Investment by Cost and Type of Buildings

<u>SUMMARY</u>					
<u>SUB-PROJECT</u>	<u>CONSTRUCTION AREA (+)</u>	<u>COST</u>	<u>ORIGINAL ESTIMATE</u>	<u>CONSTRUCTION PERIOD</u>	<u>BUILDER</u>
Alonio	1417.43	125,930. ⁴⁸	120,000.00	317 calendar days	Cia. Atlas, S. A.
Tonosí	499.25	62,560.00	58,000.00	242 calendar days	Const. Interiorana, S. A.
Toabre	1176.45	127,805.00	110,580.00	315 calendar days	Econoforma, S. A. and Arq. Aquilino Tejeira
Sta. Rita	841.85	95,415.00	99,600.00	259 calendar days	Ing. Alejandro Santos E.
Sardinilla	522.27	68,696.00	62,000.00	145 calendar days	Econoforma, S. A.
Montijo	700.79	109,083. ⁵⁰	95,750.00	203 calendar days	Ing. Alejandro Santos E.
T O T A L S	<u>5158.04</u>	<u>\$589,489.98</u>	<u>\$545,930.00</u>	<u>1431 calendar days</u>	

(+) Includes only area covered by buildings. Does not include pavements, septic tanks, access walks, drainage, etc. Expressed in square meters (mts.²).

March 31, 1968

Attachment 3A-1

Ministry of Agriculture, Commerce and Industries

Project of Agricultural Development

A.I.D. Loan No. 525-L-010

Capital Investment by Cost and type of Buildings in Alanje

ALANJE AREA

<u>Community</u>	<u>Building Type</u>	<u>Construction Area - M²</u>	<u>Details Cost +</u>	<u>Original Estimate</u>	<u>Construction Period</u>	<u>Builder</u>
Alanje	Central office	206.40	15,484.00	19,000.00	From Nov. 18/65 To Sep. 30/66	Compañía Atlas, S.a
	Bachelor's quarters	156.87	12,761.00	14,000.00		
	Marketing Center	275.42	18,084.48	18,000.00		
	Warehouse & Workshop	577.20	37,611.00	37,000.00		
	Extension Office	67.18	6,868.00	7,000.00		
Sta. Marta	Extension Office	67.18	6,868.00	7,000.00		
Progreso	Extension Office	67.18	7,273.00	7,000.00		
All Communities	Access; sidewalks drainage, septic tanks, parking areas, etc.	-	20,981.00	11,000.00		
T O T A L S		1,417.43	\$ 125,930.48	\$ 120,000.00	317 calendar days	

* Cost includes additional work authorized due to problems encountered at the site during construction and to needs not anticipated before bidding.

Ministry of Agriculture, Commerce and Industries
Project of Agricultural Development
A.I.D. Loan No. 525-L-010

Capital Investment by Cost and type of Buildings in Tonosi

TONOSI AREA

<u>Community</u>	<u>Building Type</u>	<u>Construction Area - M²</u>	<u>Details Cost +</u>	<u>Original Estimate</u>	<u>Construction Period</u>	<u>Builder</u>
Tonosí	Central Office	144.00	12,595.00	13,500.00	From	Constructora
	Bachelor's quarters	128.25	12,355.00	13,600.00	Dec. 20/65	Interiorana
	Warehouse & Workshop	227.00	19,560.00	23,800.00	To	S.A.
	Access, sidewalks, drainage, septic tanks parking areas, etc.	-	18,050.00	7,100.00	Aug.19, 1966	
T O T A L S		499.25	\$ 62,560.00	\$ 58,000.00	242 calendar days	

+ Cost includes additional work authorized due to problems encountered at the site during construction and to additional requirements not anticipated before bidding.

March 31, 1968

Ministry of Agriculture, Commerce and Industries
Project of Agricultural Development
AID Loan No 525-L-010

Capital Investment by Cost and Type of Buildings in Montijo

MONTIJO AREA

<u>COMMUNITY</u>	<u>BUILDING TYPES</u>	<u>CONSTRUCTION DETAILS</u>		<u>ORIGINAL ESTIMATE</u>	<u>CONSTRUCTION PERIOD</u>	<u>BUILDER</u>
		<u>AREA (Mts.²)</u>	<u>COST(+)</u>			
Montijo	Central Office	144.00	15,935.00	12,500.00	From Dec. 2, 1966	Ing. Alejandro Santos E.
	Bachelors' Quarters	128.25	14,600.00	13,000.00		
	Warehouse & Workshop	227.00	22,783.20	26,000.00		
Sona	Extension Office	67.18	10,588.00	9,500.00	to	
Rio de Jesús	Extension Office	67.18	9,872.00	9,500.00	June 22, '67	
Ponuga	Extension Office	67.18	10,187.00	9,500.00		
(all communities)	Access, sidewalks, drainage, septic tanks, parking areas, etc.	--	25,103.30	15,750.00		
T O T A L S		<u>700.79</u>	<u>109,083.50</u>	<u>95,750.00</u>	<u>203 calendar days</u>	

(+) Cost includes additional work authorized due to problems encountered at site.

Panamá, March 31, 1968.

Ministry of Agriculture, Commerce and Industries
Project of Agricultural Development
AID Loan No 525-L-Q10

Installation Cost of power and water facilities for new Institutional Buildings

<u>Area</u>	<u>Community</u>	<u>Power</u>	<u>Water</u>	<u>Total</u>	<u>Observation</u>
<u>ALANJE</u>					
	Alanje	-	1,750.00		Drilling water well
	Alanje	-	286.00		Hidroneumatic tank
	Alanje	-	458.00		Water pump
	Santa Marta	-	316.50		Water pump with tank
	Santa Marta	-	875.00		Drilling water well
	Santa Marta	-	<u>118.67</u>		Materials for installing water pump
				3,804.17	
<u>TONOSI</u>					
	Tonosí	-	875.00		Drilling water well
	Tonosí	-	475.60		Water pump with tank
	Tonosí	-	<u>250.00</u>		Water storage tank
				1,600.60	
<u>TOABRE</u>					
	Caimito	-	875.00		Drilling water well
	Caimito	-	351.00		Water pump
	Caimito	-	305.00		Water tank
	Toabre	-	875.00		Drilling water well
	Toabre	-	<u>335.20</u>		Water well
				2,741.20	
	Cairito	1,645.00			Power plant 5KW
	Cairito	2,995.00			Power plant 15KW
	Toabre	<u>1,645.00</u>			Power plant 5 KW
				6,285.00	

<u>Area</u>	<u>Community</u>	<u>Power</u>	<u>Water</u>	<u>Total</u>	<u>Observation</u>
<u>SARDINILLA</u>					
	Sardinilla	-	875.00		Drilling water well
	Sardinilla	-	186.00		Water pump
	Buena Vista	-	875.00		Drilling water well
	Buena Vista	-	<u>200.00</u>		Water pump
				2,136.00	
	Sardinilla	<u>1,645.00</u>		1,645.00	Power plant 5KW
<u>MONTEJO</u>					
	Poruga	--	1,750.00		Drilling water well
	Poruga	-	298.50		Water pump
	Poruga	-	325.00		Water tank
	Poruga	-	<u>201.04</u>		Materials for the water tower
				2,574.54	
	Poruga	<u>1,645.00</u>	-	1,645.00	Power plant 5KW
				<u>22,431.51</u>	
			T O T A L		

Panama, March 31, 1968

08.000,1

08.100,2

08.200,3

08.300,4

08.400,5

08.500,6

08.600,7

08.700,8

08.800,9

08.900,0

08.000,1

08.100,2

08.200,3

08.300,4

1960

Ministry of Agriculture, Forestry and Industries

Project of Agricultural Development

AID Loan No 525-L-010

G.O.P. Contribution to the Project and its Distribution to Loan Activities

<u>Source of the Contribution</u>	<u>Distribution</u>	<u>B/.</u>	
<u>MINISTERIO DE AGRICULTURA</u>	Programming	40.000	
	Central Office	52.950	
	Divisa	45.000	
	Región 1 (Chiriquí)	135.000	
	Región 2 (Veraguas)	55.500	
	Región 3 (Azucero)	35.000	
	Región 4 (Coclé)	90.000	
	Región 5 (West of Panama)	55.000	
	Región 6 (East of Panama)	35.000	
			543.450.00
<u>COMISION DE REFORMA AGRARIA</u>	Rural Cadastre	122.985	
	Land Settlement	224.040	
			347.025
<u>INSTITUTO DE FOMENTO ECONOMICO</u>	Agricultural Credit	806.150	
			806.150
<u>MINISTERIO DE OBRAS PUBLICAS</u>	Roads		
	Región 1 (Chiriquí)	13.625	
	Región 2 (Veraguas)	35.500	
	Región 3 (Azucero)	22.975	
	Región 4 (Coclé)	11.726	
	Región 5 (West of Panama)	74.520	
	Región 6 (East of Panama)	44.800	
			203.146
<u>INSTITUTO DE ACUEDUCTOS Y ALCANTARILLADOS NACIONALES</u>	Potable Water System		
	Región 1 (Chiriquí)	87.224	
	Región 2 (Veraguas)	18.911	
	Región 3 (Azucero)	35.079	
	Región 5 (West of Panama)	89.281	
			230.495

Source of the Contribution

Distribution

B/.

INSTITUTO DE RECURSOS
HIDRAULICOS Y ELECTRIFICACION

Electrification

Region 2 (Veraguas)	14.000	
Region 3 (Azuero)	3.616	
Region 4 (Cocle)	5.741	
Region 5 (West of Panama)	58.500	
Region 6 (East of Panama)	4.000	

85.857

MINISTERIO DE SALUD PUBLICA

Water Wells

Region 1 (Chiriqui)	12.150
Region 2 (Veraguas)	2.200
Region 3 (Azuero)	8.450
Region 4 (Cocle)	15.750
Region 5 (West of Panama)	8.750
Region 6 (East of Panama)	8.600

237.000

293.000

Health Services

MINISTERIO DE EDUCACION

Primary Schools

Region 1 (Chiriqui)	55.187
Region 2 (Veraguas)	111.966
Region 3 (Azuero)	18.883
Region 4 (Cocle)	97.778
Region 5 (West of Panama)	790.000
Region 6 (East of Panama)	88.621

1,162.435

Total

3,671.558

Panama, March 31, 1968

800.000

Y ENTREGADA DE CUOTAS
DE LA CATEGORIA DE...

Ministry of Agriculture, Commerce and Industries

Project of Agricultural Development

A.I.D. Loan No. 525-L-010

Capital Investment by Cost and type of Buildings- Activity 2, Divisa

DIVISA AREA

<u>Community</u>	<u>Building Type</u>	<u>Construction Area (Mts²)</u>	<u>Details Cost +</u>	<u>Original Estimate</u>	<u>Construction Period</u>	<u>Builder</u>
Divisa	Seed Processing Center	645.75	41,075.00	38,709.00	From Mar. 3, 1966	Cia. de Construcciones Re dol, S.A.
	Custom Farm Machinery Center	323.00	29,805.00	19,744.00	Aug. 11-1966	
	Access, sidewalks, drainage, septic tanks, parking areas etc.	-	8,829.41	7,500.00		
T O T A L S			\$ 79,709.41	\$ 65,953.00	162 calendar days	

+ Cost includes additional work authorized due to problems encountered at the site during construction and to necessary requirements not anticipated before bidding.

March 31, 1968

Ministry of Agriculture, Commerce and Industries

Agricultural Development Project

AID Loan N° 525-L-010

Sites Donated to the Project in Relation to Activity 2 - Divisa
by Size of Site and Use

<u>AREA</u>	<u>COMMUNITY</u>	<u>DONOR</u>	<u>SIZE OF SITE</u>	<u>USE</u>
Divisa	Divisa	Ministerio de Agricultura, Comercio e Industrias	4,125 m ²	Custom Farm Machinery Center
	Divisa	Ministerio de Agricultura, Comercio e Industrias	10,000 m ²	Seed Processing Plant

March 31, 1968

Ministry of Agriculture, Commerce and Industries
Project of Agricultural Development
AID Loan N° 525-L-010

Kind of Investment for Activity 2 - Divisa

<u>TOTAL</u>	<u>329,486.46</u>
<u>BUILDINGS</u>	<u>79,709.41</u>
Custom Farm Machinery Center	21,709.41
Seed Processing Center	58,000.00
<u>Equipments</u>	<u>244,922.65</u>
Agricultural Equipment	2,571.00
Agricultural Machinery	174,163.11
Equipment for the Seed Processing Plant	37,320.18
Laboratory Equipment for the Seed Plant	3,527.46
Office Equipment & Furniture	3,632.57
Refrigeration Equipment	3,279.10
Tools & Equipment for the Custom Farm Machinery Center	13,755.66
Laboratory Equipment for the Agricultural School	3,208.45
Poultry & Hog Equipment	2,873.18
Equipment for the Nutritional Laboratory	591.80
<u>Vehicles</u>	<u>4,854.40</u>
Scouts (Jeep type)	4,854.00

Attachment N° 6

Ministry of Agriculture, Commerce and Industries
Agricultural Development Project
AID LOAN N° 525-L-010

INSTITUTO NACIONAL DE AGRICULTURA, DIVISA
CENTRO PILOTO DE MECANIZACION - BCO. NAL. AGUADULCE
A ABRIL 30, 1968

Saldo según libros a Marzo 31, 1968	12,581.81	
Entradas en el Mes	5,737.45	18,319.26
Salidas en el Mes		1,541.48
Menos Nota Débito - Cheque Devuelto		<u>74.00</u>
Saldo según libros a Abril 30, 1968		<u>16,703.78</u>
Saldo según Banco al 30 Abril, 1968	17,029.98	
Cheques girados no Cebrados	<u>326.20</u>	
Saldo según libros a Abril 30, 1968		<u>16,703.78</u>

Cheques Girados no Cebrados

<u>Fecha</u>	<u>Nombre</u>	<u>Ck.</u>	<u>Valor</u>
1/15/68	Aceti-Oxigeno, S.A.	38	12.00
3/ 6/68	Alimentos Baxter	124	10.00
3/21/68	José María Sierra Tapia	140	29.70
4/26/68	Alberto López	165	72.50
4/26/68	Ignacio Fernández	166	34.00
4/29/68	Abel Cornejo	167	20.00
4/29/68	Aurelio Ortiz	168	112.00
4/29/68	Taller Zambrano	169	<u>36.00</u>
			<u>326.20</u>

TRINIDAD ATENCIO E.
Contador I.N.A.

Attachment No 6-B

Ministry of Agriculture, Commerce and Industries
Project of Agricultural Development
AID Loan 525-L-010

T A R I F F S

	<u>Rate per hour</u>
Crawler tractor, 75 H.P. with any implement not charged for separately	9.00
Crawler tractor, 52-55H.P. with any implement not charged for separately	7.50
Wheel tractor, 45 H.P.	4.50
Wheel tractor, 35 H.P.	3.50
Self-propelled rice combine	16.00
Self-propelled rice combine, per sack	0.50/sack
Two-row corn harvester	4.00
One-row corn harvester	2.50
Corn and bean planter with fertilizer attachment	2.50
Hay bailer and attachments	20.00/hectare
Corn husker and sheller	2.00

- 1.- Rates include the services of an operator. No machine or implement shall be rented out unless operated by an operator furnished by the Center.

ANNEX II
EXHIBIT # 3

Attachment ~~66~~
page 1 of 17

Ministry of Agriculture, Commerce and Industries
Project of Agricultural Development
A.I.D. Loan NO 525-L-010

LIST OF EQUIPMENT
PILOT CUSTOM FARM MACHINERY CENTER
DIVISA .

Panama, 1965

Ministry of Agriculture, Commerce and Industries

Project of Agricultural Development

A.I.D. Loan No 525-L-010

LIST OF EQUIPMENT FOR THE PILOT CUSTOM FARM MACHINERY CENTER

DIVISA

<u>Item</u>	<u>Quantity</u>	<u>Description</u>
1	2	Crawler Mounted Tractor
2	2	Safety Cab
3	2	Root-rake
4	2	Detachable Stumper
5	6	Subsoiler (unit)
6	2	Self-powered Rice Harvester
7	1	Hitch-type Rice Harvester
8	1	Double Row Corn Harvester
9	2	Single Row Corn Harvester
10	4	Corn and Bean Planter-Fertilizer
11	2	Plow
12	2	Harrow
13	1	Heavy Duty Harrow
14	2	Trailer
15	1	Ditcher
16	3	Farm Tractor
17	1	Semitrailer
18	2	Corn Husker-Shellor
19	1	Truck-Mounted Shop

PILOT CUSTOM FARM MACHINERY CENTER - DIVISA

<u>Item</u>	<u>Quantity</u>	<u>Description</u>
1	2	<p><u>Crawler-Mounted Tractors</u> (Equipped with angle dozer and toolbar, both hydraulically controlled)</p> <p><u>Type:</u> Crawler-mounted</p> <p><u>Engine:</u> Six-cylinder, 4 cycles, valves-in-head, diesel. Horsepower (sea-level rated) not less than 75 HP at the drawbar, nor less than 90 HP at the flywheel.</p> <p><u>Starting method:</u> Direct electric, 24 volt system or independent gasoline engine, 2 cylinders, 4 cycles, with electric 12 volt starter, and manual. Integral cooling system for diesel engine.</p> <p><u>Flywheel clutch:</u> Oil type with metallic-faced plates, cam engagement. Clutch to be lubricated and cooled by oil circulated under pressure (torque converter will not be accepted), or submerged in oil bath.</p> <p><u>Transmission:</u> Constructed in a detachable unit. Not less than five (5) speeds forward, and three (3) speeds reverse; selective type speed change (for fast forward and reverse shift).</p> <p><u>Steering System:</u> Clutches (with hydraulic booster), multiple discs. Metallic friction facing.</p> <p><u>General dimentions:</u> 70" minimum tread.</p> <p><u>Track frame:</u> Construction - reinforced case section. Not less than six (6) bottom rollers and two (2) upper rollers on each side; permanent lubrication.</p> <p><u>Tension wheel:</u> For heavy duty, permanent lubrication.</p> <p><u>Tracks:</u> Not less than 38 shoes on each side. Width of shoes will be 18" and height of claw measured from the inside face of the shoe will not be less than 2" high. Track shoes should be heat treated. Contact area with soid will not be less than 2700 sqaure inches.</p>

List of Equipment for the Pilot Custom Farm Machinery Center - Divisa

<u>Item</u>	<u>Quantity</u>	<u>Description</u>
		<u>Crawler-Mounted Tractors (Cont.)</u>
		<u>Blades: Reversible central section</u>
		<u>Material:</u> High carbon steel
		<u>Lengths:</u> Not less than 9'5"
		<u>Width:</u> Not less than 8"
		<u>Thickness:</u> Not less than 5/8"
		<u>End Tips:</u>
		<u>Length:</u> Not less than 1'2-5/16"
		<u>Width:</u> Not less than 8"
		<u>Thickness:</u> Not less than 3/4"
		<u>Material:</u> High carbon steel
		<u>Attachment: (Toolbar)</u>
		Toolbar and hydraulic cylinders, at rear with frames for fastening to tractor together with the grader but for independent use. Dimensions of bar: 10' x 4 1/2" x 7 1/2".
	2	<u>Safety Cabs</u>
		<u>Type:</u> For heavy duty operation. Structural members should be made from tubing of not less than 3"; heavy screening on rear with window for rear controls.
		<u>Attachment:</u> Center arm (front) protector with two front tie rods.
		<u>Note:</u> These safety cabs should be installed on crawler-mounted tractors referred to under Item 1, prior to delivery.
	3	<u>Root Rake</u>
		<u>Length:</u> Approximately eleven (11) feet.
		<u>Length of teeth:</u> Approximately 36 inches and not less than 10 teeth, with 9 inch spacing between teeth. Steel and manganese construction in curved design. Replaceable tips, anti-abrasion treated. Minimum penetration 15".
		<u>Attachment:</u> Top grill for pushing accumulated brush.
		<u>Total height:</u> Height including grill, approximately 50 inches.
		<u>Other features:</u> Standard equipment.

List of equipment for the Pilot Custom Farm Machinery Center - Division

<u>Item</u>	<u>Quantity</u>	<u>Description</u>
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3	2	<u>Root Rake</u> (Cont.)
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(Cont.)

Total weight: Approximately 2,800 lbs.

Note: These root rakes are for attaching to tractors mentioned under Item 1.

4	2	<u>Detachable Stumper</u> (for Crawler-Mounted Tractors)
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Number of teeth: Not less than 4.

Width of blade: Not less than 30".

Depth of penetration: Not less than 12"

Distance between "U" frame and teeth points: Not less than 18".

Weight: Not less than 1,500 lbs. Should be provided with ring hitch.

5	6	<u>Sub-soiler units</u> (for crawler mounted tractors).
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Sub-soilers: Three units for each tool-bar, provided with curved shank and replaceable points. Fixed clamps, 4½" x 7½", for attaching to tool-bar. Penetration power up to 24" at 75 HP, of sturdy construction.

Note: These units should be attachable to the tool-bar of the crawler-mounted tractors referred to in Item 1.

6	2	<u>Rice Harvesters</u>
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Type: Self-powered, crawler-mounted.

Platform: Width: approximately 13' -Hydraulic lift. Detachable. Height from floor: not less than 18".

Blade: Replaceable steel toothed blade, attached with rivets (blade travel not less than 2 3/4").

Cutting bar: With replaceable forged steel guards, and steel cutting surface. Safety device.

Worm and roller: Speed control. Retractable fingers. Horizontal and vertical adjustment. Safety device.

List of equipment for the Pilot Custom Farm Machinery Center - Divisa

<u>Item</u>	<u>Quantity</u>	<u>Description</u>
6	2	<u>Rice Harvesters (Cont.)</u>
		<u>Reel:</u> With pick-up reel. Controlled velocity. Vertical adjustment. Safety device. Speed adjustment of reel from operator's seat.
		<u>Elevator:</u> Metal bars and chains. Floating front drum.
		<u>Cylinder:</u> Replaceable spike teeth. Adjustable variable speed.
		<u>Concave:</u> Spike teeth, cylinder separation from 1/16" to 1/2" minimum, in 1/16" increments.
		<u>Straw-remover:</u> With sealed bearings. Curtain on the front end. Reciprocal movement, mounted on a single crankshaft.
		<u>Blower fan:</u> Variable capacity (adjustable).
		<u>Engine:</u> Not less than 70 HP at 2,000 rpm, and not less than 4 cylinders. Electric starter.
		<u>Tracks:</u> Shoes not less than 20" wide and contact area not less than 2,000 square inches (maximum floating surface). Rollers and tension wheel permanently lubricated.
		<u>Sacking system:</u> Resistant sacking platform. Large capacity classifying cylinder, capable of separating rice with high quantities of foreign matter. Minimum of three grain outlets (two for clean rice and one for rice with impurities). Capacity: 4,000 pounds per hour. In clean rice field. Equipped with device for holding sacks. Equipped with slipway for sacks.
		<u>Other:</u> Field lights. Straw spreader. Sunshade for operator and sackers. Necessary tools and greasguns for daily service. Lift hitch welded to platform statically balanced.
		Final separation of grain by means of air provided by fans, and special rice sieves.
		<u>Steering:</u> Hydraulic, forward speed hydraulically controlled. Should be provided with operation, repair and parts manual in Spanish.

List of equipment for the Pilot Custom Farm Machinery Center - Divisa

<u>Item</u>	<u>Quantity</u>	<u>Description</u>
7	1	<u>Hitch type Rice Harvester:</u> <u>Type:</u> Hitch and power- take-off actuated. <u>Platform:</u> Not less than 6' between dividing points. Sickle bar not less than 5½ feet. Retractable fingers in the feeder. Hydraulic lift from the tractor. <u>Reel:</u> Not less than six (6) slats with spring steel fingers for lifting lodge rice. Horizontal adjustment. <u>Construction:</u> Rigid construction. <u>Cylinder:</u> Spike tooth cylinder of rapid adjustment from 450 to 1,600 rpm, approximately. <u>Straw separator trays:</u> Step type with toothed straw thrower. Area of separation not less than 24 square feet. <u>Grain tray:</u> For rice. Adequately distributed and controlled feed towards the front of the sieves. <u>Cleaning:</u> Fan with not less than four vanes, with adjustable air passage. Sieves should be capable of cleaning rice with high amounts of foreign matter. Should be equipped with safety clutches at all important drives. <u>Sacking platform:</u> With not less than two outputs for sacking. With sack slipways, and seats for sacking operators. <u>Tires:</u> Two (2) implement type, six (6) ply. <u>Straw sprayer:</u> Any type. <u>Grain grader:</u> Capable of cleaning rice grain with high amount of foreign matter, such as weed seeds and particles of organic matter. <u>Blades:</u> Replaceable toothed edge, high carbon treated, replaceable, riveted. <u>Cutting bar:</u> Replaceable forged steel with steel cutting surface.

List of equipment for the Pilot Custom Farm Machinery Center - Divisa

<u>Item</u>	<u>Quantity</u>	<u>Description</u>
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7	1	<u>Hitch type Rice Harvester:</u> (Cont.)
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Note: To be towed by tractors referred to in Item 16. Should be provided with operation, repair and parts manual in Spanish.

8	1	<u>Double Row Corn Harvester:</u>
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Type: Tractor-mounted, two (2) rows, detachable

Snapping unit: Roller system, two per row with spring tension, separation adjustment of rollers from seat. For harvesting in furrows between 37 and 43 inches, in both distances two (2) inches approximately are permitted. The length of rollers should be between 45 and 50 inches.

Collecting unit: Roller chain system, three (3) per row. Minimum altitude for transportation, 12 inches. Collecting altitude, down to the soil. Should be provided with batting arms for ears of corn. Altitude controlled by hydraulic system.

Side elevators: Two (2) each. Approximate width, 8 inches. Chain roller system.

Husker unit: Six (6) rollers on each side. Length of rollers, from 30 to 35 inches, rollers of casted iron leveled with segmented rubber rollers. Should be provided with vents for blowing trash towards the bottom and not over the rollers.

Other features: Should be provided with safety devices for main drives, i.e. pins, sliding clutches.

Mounting Attachments for the tractor.

Hand controls for rapid action.

Stepladder.

Hitch for trailer wagon.

High capacity in the wagon elevator with corn ear deflector. Standard equipment.

List of equipment for the Pilot Custom Farm Machinery Center - Divisa

<u>Item</u>	<u>Quantity</u>	<u>Description</u>
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8	1	<u>Double Row Corn Harvester:</u> (Cont.)
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Note: This harvester is to be attached to tractors referred to in Item 16. Should be provided with operation, repair and parts manual in Spanish.

9	2	<u>Single Row Harvesters:</u>
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Type: Tractor-mounted, one (1) row, detachable.

Snapping unit: Roller (2) system with spring tension, separation adjustment between rollers. Length of rollers from 45 to 50 inches.

Collecting unit: Roller chain system, three (3) per row. Minimum altitude for transportation, 12 inches. Collecting altitude, down to the soil, controlled by hydraulic system. Should be provided with batting arms for ears of corn.

Side elevators: Chain roller system with an approximate width of 8 inches.

Husker unit: Six (6) rollers with a length of 30 to 35 inches, casted iron with segmented rubber rollers. Should be provided with vents for blowing trash toward the bottom and not over the rollers.

Other features: Should be provided with safety devices for main controls, i.e. pins, sliding clutches. Standard equipment. High capacity in the wagon elevator with ear deflector.

Note: This Harvester is to be attached to tractors referred to in Item 16. Should be provided with operation, repair and parts manual in Spanish.

10	13	<u>Corn and Bean Planter-Fertilizer:</u>
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Type: Two rows with three point hitch.

Space between rows: From 35 to 42 inches approximately.

List of equipment for the Pilot Custom Farm Machinery Center - Divisa

<u>Item</u>	<u>Quantity</u>	<u>Description</u>
10	3	<u>Corn and Bean Planter-Fertilizer: (Cont.)</u>

Planter mechanism: Actuated by tamping tires and drive chains of the planter, with safety devices in main drives.

Capacity of fertilizer hoppers: Not less than one cubic foot.

Tool-bar: Length: 72 inches. Square section: 2 inches.

Attachments:

Disc markers.

Two (2) discs per row for planting on ridges.

Two cover discs per row.

Rubber tamping wheels.

Three fourteen (14) inch listers.

Other features:

Conventional equipment.

Plates for continuous drop of seed; for flint type corn.

Tools for routine adjustments.

Note: These planters are to be used with tractors referred to in Item 16. Should be provided with operation and parts manual in Spanish.

11 Plows

Type: Four (4) discs; three point hitch, Category II or semi-mounted; activated by hydraulic cylinder from operator's seat; with transportation wheel.

Discs: For heavy duty work; high carbon treated; 26 inches diameter; minimum thickness of 3/16 inches; sealed type bearings; to be provided with adjustable disc cleaners.

List of equipment for the Pilot Custom Farm Machinery Center - Division

<u>Item</u>	<u>Quantity</u>	<u>Description</u>
11	2 (,JuoO)	<p><u>Plows (Cont.)</u></p> <p><u>Furrow wheel:</u> Should be disc type (with additional weight).</p> <p><u>Adjustments:</u> To be provided with adjustments for working angle for discs and adjustments for varying the total width of cut.</p> <p><u>Weight:</u> Approximately 1,150 lbs.</p> <p><u>Other features:</u> Conventional equipment.</p> <p><u>Note:</u> These plows will be for attaching to tractors referred to under Item 16. Should be provided with operation and parts manual in Spanish.</p>
		<p><u>Harrows:</u></p> <p><u>Type:</u> Offset "V" type, three point hitch Category II.</p> <p><u>Cut:</u> Not less than 7 feet.</p> <p><u>Discs:</u> Cutaway type. Not less than 18 discs, 22 inches diameter, high carbon steel. Must have adjustable scrapers.</p> <p><u>Bearings:</u> Permanent (sealed) lubrication.</p> <p><u>Weight:</u> Approximately 1,150 lbs.</p> <p><u>Attachments:</u> Tools for routine adjustments.</p> <p><u>Other features:</u> Standard equipment.</p> <p><u>Note:</u> These harrows are to be used with tractors referred to under Item 16. Should be provided with operations, repair, and parts manual in Spanish.</p>

13 Heavy Duty Harrow:

Type: Towed; offset; hydraulic angling; transportation wheels hydraulically actuated.

Cut: Minimum 9 feet.

List of equipment for the Pilot Custom Farm Machinery Center - Divisa

<u>Item</u>	<u>Quantity</u>	<u>Description</u>
13	1	<u>Heavy Duty Harrow:</u> (Cont.)

Discs: Not less than twenty (20) cutaway discs, 28 inches by 5/16" minimum thickness, high carbon treated. Permanent (sealed bearings) Lubrication. Disc cleaners.

Weight: Not less than 6,200 pounds.

Attachments: Weight box. Tools for adjustment for axels and other routine adjustments. Rest shank for easy attachment of the towbar to the tractor.

Note: To be towed by a crawler-mounted tractor, 75 HP. Hydraulic hoses should be attachable to the hydraulic system of the tractor referred to under Item 1. Should be provided with operation, repair and parts manual in Spanish.

14	2	<u>Trailers:</u>
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Type: Four (4) wheels; agricultural type.

Capacity: Not less than 6,000 pounds.

Tread: Not less than 65 inches.

Length: Not less than 10 feet wheelbase.

Wagon: For corn on the husk; complete metal construction; rear unload (with inspection step ladder).

Steering: Automobile type steering wheel. Steering rods should be placed behind the axle for protection against logs and rocks.

Height: Minimum 20 inches from floor to axels.

Lubrication: Under pressure.

Tires: Implement type, six ply.

Hitch: "U" type with springs and pin.

Other features: Standard equipment.

List of equipment for the Pilot Custom Farm Machinery Center - Divisa

<u>Item</u>	<u>Quantity</u>	<u>Description</u>
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(- 14) Trailers: (Cont.)

Frame or Chassis: Should be flexible to provide transportation over irregular terrain.

Note: These wagons are to be used with corn harvesters referred to under Items 8 and 9. Should be provided with parts manual in Spanish.

15 Ditcher:

Type: To be attached to the toolbar by means of an oscilating hitch. For heavy duty work.

Width: Width of wings (rear end) not less than 5 feet.

Height: Height of moaldboard not less than 16 inches.

Penetration: Minimum penetration 24 inches.

Cutting Section: Casted; replaceable; steel for plowshare.

Other features: Clamp for attaching to toolbar, 4 1/2" x 7 1/2". Standard equipment.

Note: This ditcher will be attached to toolbar referred to under Item 1. Should be provided with parts manual in Spanish.

16 Wheel-Mounted Agricultural Tractors:

Type: Farm tractor, wheel mounted, three point hitch, Category II, standard low arch.

Engine: Diesel, four (4) cylinder, 50 HP minimum at the drawbar, 12 volt electric starter.

Transmission: Not less than four (4) speeds forward and one (1) rear. With reductions in the transmission system for high and low speeds.

List of equipment for the Pilot Custom Farm Machinery Center - Division

<u>Item</u>	<u>Quantity</u>	<u>Description</u>
16	3	<p><u>Wheel-Mounted Agricultural Tractors (Cont.)</u></p> <p><u>Power take-off:</u> Selection of engine or wheel speeds, shaft safety cover.</p> <p><u>Brakes:</u> To engage wheels independently or jointly.</p> <p><u>Steering:</u> Mechanical.</p> <p><u>Differential:</u> Should be provided with attachment for locking differential for maximum traction.</p> <p><u>Hydraulic system:</u> For actuating three (3) points; valve and couplings with plug for towed implements.</p> <p><u>3-point system:</u> Lower links should not be capable of pivoting. Stabilizer bars, Category II should be provided for towing implements.</p> <p><u>Wheels:</u> Steels discs. Wheels mechanically adjusted or through tractor power. Front tires 7.50 x 16; rear: 14 x 28. Wheel adjustment should be from 50 to 79 inches for front wheels, and 55 to 90 inches for rear wheels.</p> <p><u>Instruments to be included:</u> tachometer, hour-meter, fuel gage, oil pressure indicator.</p> <p><u>Other features:</u> Automatic depth adjustment in hydraulic system. Standard equipment. Should be provided with operation, repair and parts manual in Spanish.</p>
17	1	<p><u>Semitrailer:</u></p> <p><u>Type:</u> Low straight platform, gooseneck type, heavy duty construction, hardwood floor.</p> <p><u>Capacity:</u> Approximately 16 tons.</p> <p><u>Length of platform:</u> Minimum 12 feet.</p> <p><u>Brakes:</u> Airbrakes, and parking brakes with controls for attaching to truck-tractor.</p>

List of equipment for the Pilot Custom Farm Machinery Center - Divisa

<u>Item</u>	<u>Quantity</u>	<u>Description</u>
17	1	<u>Semitrailer:</u> (Cont.) <u>Width of platform:</u> Minimum 8 feet. <u>Wheels and tires:</u> Standard. <u>Other:</u> Detacheable side fins for increasing the width of the platform. Spare wheel and tire, with mounting fixture. Portable ramps for loading from floor, with hitches at rear of platform. Minimum three (3) rings for fastening on each side of platform. Rear and side lights, and reflectors. Platform painted in yellow. Tools and jack for dismounting wheels. Parking jacks. <u>Other features:</u> Standard equipment. Should be provided with operation, repair and parts manual in Spanish.
18	2	<u>Corn Husker-Sheller:</u> <u>Type:</u> Portable (two-wheel mounted). <u>Capacity:</u> Approximately 5,000 lbs. of corn on husks per hour. <u>Power source:</u> Gasoline engine coupled to husker-sheller unit by means of any standard methods (chain, belt, direct, etc.) but should be provided with safety device between both units to avoid breakeage due to jamming or obstruction. Both units will be provided with a clutch system. <u>Bearings:</u> Sealed (permanent lubrication). <u>Other features:</u> High capacity hopper; separators for separating grain from husks and cobs with sieve for cleaning grain from dust and foreign matter. Towbar with fork type hitch and rest arm. Should be provided with operations, repair and parts manual in Spanish.
19	1	<u>Truck-mounted shop</u> <u>Type:</u> For light duty work; four (4) wheel drive.

List of equipment for the Pilot Custom Farm Machinery Center - Divisa

<u>Item</u>	<u>Quantity</u>	<u>Description</u>
19	1	<p><u>Truck-mounted shop:</u> (Cont.)</p> <p>Capacity: Gross weight of vehicle: 9,000 pounds approximately.</p> <p>Engine: Gasoline engine, not less than 140 HP, 6 cylinders.</p> <p>Wagon: Open with horizontal and vertical compartments at the side of the truck, weatherproof, for storing tools and parts. These compartments should be an integral part of the wagon and will be provided with safety locks against theft. Rear end of wagon to be protected with bumpers.</p> <p>Tires: Military type, 6 ply nylon, with tube.</p> <p>Lights: 12 volt system; in addition to standard lights, should be provided with directional signal lights and back-up lights.</p> <p>Optional equipment and accessories: Hubs for disengaging front axle drive. Heavy duty transmission. Alternator. Front winch. Trailer hitch for fork type hitch. Side and rearview mirrors. Two windshield wipers.</p> <p>Rear mounted crane: Capacity for one (1) ton, vertical and horizontal movement boom, operated manually. Crane hook should stand out at least four (4) feet from rear pumper of the truck, and will also be manually operated. Should have operator's manual in Spanish.</p>

List of equipment for the Pilot Custom Farm Machinery Center - Divisa

<u>Item</u>	<u>Quantity</u>	<u>Description</u>
20	2	<u>Baler</u> <u>Type:</u> Power take-off <u>Capacity:</u> 10 tons per hour minimum <u>Type of bale:</u> Rectangular. Length 31" x 37". Length, variable up to 40". Size of bale chamber, 14" x 18", minimum. Weight of bales, up to 125 lbs., twine-tie. <u>Type of pick-up:</u> floating with spring-tooth cylinder, spring compensator with adjustable working or transport highth. Width 48" minimum. <u>Bale separation:</u> timed needle action. <u>Plunger:</u> aprox. 60 strokes per minute, length 26" minimum. <u>Feed opening:</u> minimum 230 sq. inches. <u>Bale slicer:</u> Knife on plunger against stationary knife. <u>Transmission:</u> Enclosed automotive, helical or hypoid gears. <u>Safety device:</u> Must have safety device at the main drives, such as overload friction disc-clutch, ratchet jaw clutch, shear bolts, etc. <u>Bale counter:</u> Automatic, with reset. <u>Others:</u> Should provide, operator's maintenance manuals and parts list in Spanish. <u>Note:</u> This baler should be capable to be powered by the tractors referred to in item 16.

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 2/11/68

Attachment No. 7

Ministry of Agriculture, Commerce and Industries
 Project of Agricultural Development
 AID Loan N° 525-L-010

Sub-Loans Granted under the Livestock Credit Program IFE-MACI-
 AID as per accumulated Reimbursement Summary up to March 27/68

IFE'S AGENCY	BULLS		WATER BELLS		PASTURE		IMPROVED PASTURES		HEIFERS		TOTAL VALUE B/.
	UNITS	VALUE	UNITS	VALUE	HECTARE	VALUE	UNITS	VALUE	UNITS	VALUE	
Alanje	3	1.100.00	4	4.238.40	45	1.000.00	-	-	-	-	6.338.40
Bocas del Toro	12	4.650.00	-	-	55	800.00	-	-	-	-	5.450.00
Buena Vista	6	2.015.00	-	-	10	100.00	1	1.306.00	-	-	3.421.00
Chitré	19	5.724.00	10	1.949.50	249	6.065.00	5	7.600.00	89	11.325.00	32.663.50
Chepo	17	6.940.00	1	820.40	10	100.00	1	1.679.60	20	2.000.00	11.540.00
Chorrera	39	15.759.11	6	3.507.00	519	10.620.00	9	5.791.00	287	40.845.00	76.522.11
Concepción	37	17.075.00	10	5.560.00	459	9.600.00	8	3.150.00	-	-	35.385.00
David	109	52.475.00	5	850.00	3914	85.605.00	24	10.615.00	323	31.660.00	181.205.00
Las Tablas	105	34.911.06	15	7.170.33	542	3.733.00	15	3.598.00	100	12.500.00	61.912.39
Macaracas	56	15.020.00	-	-	1424	17.851.00	5	1.325.00	123	13.455.00	47.651.00
Natú	10	3.420.00	7	3.750.50	1802	29.707.50	8	3.260.00	76	8.335.00	48.473.00
Ocú	41	10.730.00	2	800.00	835	5.793.50	3	1.277.50	14	2.850.00	21.451.00
Penónomé	64	19.748.65	8	4.155.20	3296	67.549.15	18	6.227.85	69	9.866.60	107.547.45
Pesé	15	4.565.00	-	-	2	-	-	-	63	8.600.00	13.165.00
Santiago	130	41.785.00	4	2.522.00	6284	67.601.00	19	7.627.00	286	34.445.00	153.980.00
Soná	2	600.00	-	-	-	-	-	-	-	-	600.00
Volcán	4	1.500.00	2	975.00	335	12.725.00	1	2.500.00	-	-	17.700.00
Totales	669	238.017.82	74	36.298.33	19741	318.850.15	117	55.956.95	1450	175.881.60	825.004.85

April 27, 1968

Ministerio de Agricultura, Comercio e Industrias

Proyecto de Desarrollo Agrícola

Préstamo A.I.D. No 525-L-010

1966

AGENCIA DEL IFE	M A I Z		F R I J O L E S		TOTAL B/.
	Unidad	Valor	Unidad	Valor	
00. Alenje	17	3,124.75	23	2,990.75	6,115.50
Bocas del Toro	1	500.00	--	--	500.00
00. Buena Vista	23	2,202.75	3	97.25	2,300.00
00. Chitré	32	2,118.75	5	460.50	2,579.25
00. Chepo	25	1,863.20	9	319.50	2,182.70
00. Chorrera	181	22,485.72	28	3,615.40	26,101.12
00. Concepción	123	11,623.97	16	1,104.55	12,728.52
00. David	26	5,251.20	22	4,802.60	10,053.80
00. Las Tablas	90	7,731.25	2	62.50	7,793.75
00. Macaracas	6	618.75	5	717.50	1,336.25
00. Natá	37	1,754.90	3	209.50	1,964.40
00. Ocú	26	1,345.10	2	96.50	1,441.60
00. Penonomé	116	16,468.66	51	4,404.90	20,873.56
00. Pesé	9	501.00	--	--	501.00
00. Santiago	76	3,650.00	12	659.85	4,309.85
Soná	--	--	--	--	--
00. Volcán	--	--	65	12,801.30	12,801.30
TOTALES	788	81,240.00	246	32,342.60	115,582.60

Panamá, 19 de marzo de 1968

SECRETARÍA DE AGRICULTURA, COMERCIO E INDUSTRIAS

Ministerio de Agricultura, Comercio e Industrias

Proyecto de Desarrollo Agrícola

Préstamo A.I.D. Nº 525-L-010

1967

AGENCIA DEL IFE	CORN M A I Z		COWPEAS F R I J O L E S		TOTAL B/.
	Unidad Unit	Valor Amount	Unidad Unit	Valor Amount	
Alanje	--	--	1	95.00	95.00
Bocas del Toro	--	--	--	--	--
Buena Vista	2	243.00	--	--	243.00
Chitré	28	2,510.25	2	128.50	2,638.75
Chepo	1	42.00	--	--	42.00
Chorrera	9	957.70	--	--	957.70
Concepción	22	1,835.50	--	--	1,835.50
David	8	1,006.00	--	--	1,006.00
Las Tablas	6	837.00	--	--	837.00
Macaracas	10	1,086.75	--	--	1,086.75
Natá	2	102.00	--	--	102.00
Ocú	2	102.10	--	--	102.10
Penonomé	1	100.00	--	--	100.00
Pesé	10	1,202.50	--	--	1,202.50
Santiago	4	312.00	--	--	312.00
Soná	--	--	--	--	--
Volcán	2	165.00	1	245.00	410.00
TOTALES	107	10,501.80	4	468.50	10,970.30

Panamá, 19 de marzo de 1968

Ministry of Agriculture, Commerce and Industries
Project of Agricultural Development
AID Loan N° 525-L-010

VALUE OF SUB-LOANS UNDER LIVESTOCK CREDIT ACTIVITY FROM ORIGINAL
LOAN FUND AND REPAYMENTS

<u>Sub-Activities</u>	<u>Original Allocation</u>	<u>Sub-loans from Original funds</u>	<u>Sub-loans from Repayments</u>	<u>Total Value of all sub-loans</u>
Livestock Credit	965.000.00	836.211.93	213.422.42	1.049.634.35 ←
IFE's Rotatory Fund	-	-	100.001.60	100.001.60
Bulls	325.000.00	224.578.82	13.439.00	238.017.82
Pasture	200.000.00	293.717.65	25.132.50	318.850.15
Water Wells	100.000.00	34.771.36	1.526.97	36.298.33
Farm Improvement	125.000.00	47.565.95	8.391.00	55.956.95
Corn and Cowpeas	160.000.00	122.285.90	2.342.00	124.627.90
Heifers	55.000.00	113.292.25	62.589.35	175.881.60
Legal Claims Fund	-	-	4.000.00	-
Repayments Reinvested: B/. 217.422.42				

April 29, 1968

Ministry of Agriculture, Commerce and Industries
Project of Agricultural Development
A.I.D. Loan No. 525-L-010

Earned Interest on Time Deposits From Livestock Credit Repayments

<u>TIME DEPOSITS No.</u>	<u>VALUE OF CERTIFICATE</u>	<u>RENEWALS</u>	<u>EARNED INTEREST</u>	<u>DEPOSITS</u>
3008	30.000.00	30.822.73	822.73	-
1-119	30.822.73	-	783.35	31.606.08
5003	30.000.00	-	822.70	30.822.70
1-128	30.000.00	30.662.67	662.67	-
1-377	30.662.67	31.049.95	387.28	-
1-501	31.049.95	-	121.22	31.171.17
TOTAL EARNED INTEREST			<u>3.599.95</u>	

Ministry of Agriculture, Commerce and Industries
Project of Agricultural Development
AID Loan N° 525-L-010

Repayments to Sub-loans under Livestock Credit Activity
by months up to April, 1968

	<u>Checks</u>	<u>Monthly Repayments</u>	<u>Time Deposits</u>	<u>Monthly Balance</u>
Agosto 1966	-	17.143.19	-	17.143.19
Sept. 1966	-	4.581.87	-	21.725.06
Oct. 1966	-	6.260.60	-	27.985.66
Nov. 1966	-	5.709.27	-	33.694.93
Dic. 1966	30.000.00	6.953.05	-	10.647.98
Enero 1967	-	5.384.63	-	16.032.61
Feb. 1967	-	8.908.54	-	24.941.15
Marzo 1967	-	14.619.96	-	39.561.11
Abril 1967	-	16.334.21	-	55.895.32
Mayo 1967	30.000.00	13.534.19	-	59.429.51
Junio 1967	30.000.00	12.846.29	-	22.275.80
Julio 1967	-	35.347.74	-	57.623.54
Agosto 1967	-	7.697.68	-	65.321.22
Sept. 1967	33.777.85	18.166.48	-	49.709.85
Oct. 1967	17.661.75	18.845.56	30.822.70	81.716.36
Nov. 1967	45.212.00	10.424.78	-	46.929.14
Dic. 1967	36.883.35	12.594.51	31.606.08	54.246.38
Enero 1968	24.672.50	17.718.32	-	47.292.20
Feb. 1968	-	11.758.10	-	59.050.30
Marzo 1968	22.821.97	10.678.53	31.171.17	78.078.03
Abril 1968	15.940.00	12.571.32	-	74.709.35
TOTALS	286.969.42	√268.078.82	93.599.95	74.709.35

April, 1968

Ministry of Agriculture, Commerce and Industries

Pure Seed Program-Bank Balance Plus Value of Inventory
and Receivable Accounts by Months

	<u>Value</u>
Agosto de 1967	127,565.78
Septiembre de 1967	127,565.78
Octubre de 1967	128,384.36
Noviembre de 1967	129,191.42
Diciembre de 1967	130,627.15
Enero de 1968	136,637.47
Febrero de 1968	147,020.99
Marzo de 1968	160,569.51
Abril de 1968	169,455.44

Abril de 1968

Ministry of Agriculture, Commerce and Industries
Project of Agricultural Development
AID Loan No 525-1.0010

Earned interests on Time Deposits from Pure Seed Program

<u>Time Deposit No</u>	<u>Value of Certificate</u>	<u>Renewals</u>	<u>Earned Interests</u>	<u>Deposits</u>
n/n	90.000.00	30.000.00	2,603.83	62,603.83
n/n	30.000.00	30.271.81	271.81	--
/n	30.271.81	30.533.05	261.24	--
5005	30.533.05	---	808.06	31,341.11
1-202	60.000.00	41.383.29	1,383.29	20.000.00
1-409	41.383.29	21.544.90	161.61	20.000.00
1-481	21.544.90	---	177.08	21,721.98
1-301	15,036.10	---	259.53	15,295.63
			<u>5,926.45</u>	
			<u>Total Earned Interest</u>	

Panama, March 31, 1968

Attachment No 16

Ministry of Agriculture, Commerce and Industries

Project of Agricultural Development

AID Loan No 525-L-010

Charges to Contingency Fund

DESCRIPTION	ORIGIN	VALUE	AREA
Construction	Add. to Contract No 28	8,192.00	Toabre
Construction	Add. to Contract No 5	2,560.00	Tonosi
Construction	Add. to Contract No 6	4,275.00	Divisa
Construction	Add. to Contract No 2-A	9,055.48	Alanje
Four Deep Well	Ministry of Social Welfare	3,500.00	Sta. Marta-Toabre-Tonosi-Caimito
Potable water Tank	MACI's Resolution No 436	250.00	Tonosi
Potable water Tank	MACI's Resolution No 553	305.00	Toabre
Pump, Motor and Pipe	MACI's Resolution No 511	335.20	Toabre
Pump, Motor and Pipe	MACI's Resolution No 644	351.00	Caimito
Pump, Pression Tank & Pipe	MACI's Resolution No 643	316.50	Sta. Marta
Pump, Motor and Pipe	MACI's Resolution No 550	475.60	Tonosi
Electric plant	Price Contest (57)	1,645.00	Caimito
Electric plant	Price Contest (57)	1,645.00	Toabre
Pipe	MACI's Resolution No 399	98.37	Alanje
Two Deep Well	Ministry of Social Welfare	1,750.00	Alanje
Potable water Tank	MACI's Resolution No 844	458.00	Alanje

DESCRIPTION	ORIGEN	Att. No 16 VALUE	Cont 2 AREA
Pump, Motor and Tank	MACI's Resolution No 839	286.00	Alanje
Banking Services	Interest	21.60	Various
Construction	Add. to Contract No 6	1,384.41	Divisa
Pump, Motor and Pipe	MACI's Resolution No 101	199.98	Sardinilla
Materials for Construction	MACI's Resolution No 8	99.96	C. Piloto
Educational Equipment	MACI's Resolution No 475	8,819.00	Alanje
Two Deep Well	Ministry of Social Welfare	1,750.00	Sardinilla
Two Deep Well	Ministry of Social Welfare	1,750.00	Montijo
Construction	Add. to Contract No 51	696.00	Sardinilla
Construction	Add. to Contract No 52	333.50	Montijo
Construction	Add. to Contract No 40	8,106.00	Sta. Rita
Refrigeration Installation	MACI's Resolution No 471	485.00	Toabre
Construction	Contract No 60	16,700.00	Toabre
Mobile Unit-Audio-Visual	Contract No 63	9,011.00	Sta. Rita
Electric Plant	Contract No 64	3,290.00	Sardinilla & Montijo
Slide Projector	MACI's Resolution No 419	165.00	Alanje
Material for Deep Well	MACI's Resolution No 759	114.54	Alanje
T O T A L		B/88,424.14	

Panama, December 31, 1967

Attachment No 17

Ministry of Agriculture, Commerce and Industries
Agricultural Development Project
AID Loan No 525-L-010

Disbursement of AID Loan 525-L-010 by Type of Disbursement

Payment by checks	B/. 2,296.826.17
Payment by Letters of Commitments	64.222.80
Payment to Excess Property Equipment (EPRO 68) . . .	<u>38.951.03</u>
T O T A L	B/. <u>2,400.000.00</u>

Ministry of Agriculture, Commerce and Industries

Project of Agricultural Development

A.I.D. Loan No. 525-L-010

EQUIPMENT ACQUIRED BY LETTER ORDERS, ITS DISTRIBUTION AND VALUE

Letter Order No.	Description	Quantity	Area	Unit Value	Total Value
8892	Corn seed Cleaner and Grader	1	Divisa Centro de Semilla	4,848.55	4,848.55
	Belt Elevator	6	Divisa Centro de Semilla	5,003.80	5,003.80
					<u>9,852.35</u>
8897	Scale Bagger	1	Divisa Centro de Semilla	543.00	543.00
	Portable Scale	1	Divisa Centro de Semilla	149.00	149.00
	Floor Scale	3	Alanje, Toabré Divisa, (Centro de Semilla)	701.33	2,104.00
					<u>2,796.00</u>
8766	Rice Harvester Seef propelled	2	Divisa Centro Piloto	12,870.00	25,740.00
	Rice Harvester Pull type	1	Divisa Centro Piloto	3,997.50	3,997.50
	Farm tractor	3	Divisa Centro Piloto	4,241.25	12,723.75
	Farm tractor	1	Tonosí	4,750.00	4,750.00
					<u>47,211.25</u>

- 2 -

<u>Letter Orders No.</u>	<u>Description</u>	<u>Quantity</u>	<u>Area</u>	<u>Unit Value</u>	<u>Total Value</u>
9393	Valve Refacer	1	Toabré	448.00	448.00
	Valve Seat Grinder	1	Toabré	210.00	210.00
	Power Timing Light	1	Toabré	28.80	28.80
	Battery Charger	1	Toabré	140.00	140.00
	Hidraulic Press-Manual	1	Toabré	288.00	288.00
	Air Compressor	1	Toabré	219.00	219.00
					<u>1,333.80</u>
8773	Portable Air Compressor	2	1 Alanje-Divisa 1	225.00	450.00
	Valve Refacer	2	1 Alanje-Divisa 1	451.65	903.30
	Valve Seat Grinder	2	1 Alanje-Divisa 1	220.29	440.58
	Power Timing Light	2	1 Alanje-Divisa 1	29.00	58.00
	Battery Charger	2	1 Alanje-Divisa 1	137.98	275.96
	Cell Tester	2	1 Alanje-Divisa 1	9.95	19.90
	Steam Cleaner	2	1 Toabré-Divisa 1	343.40	686.80
	Creeper	4	2 Alanje-Divisa 2	9.27	37.08
	Gato Hidráulico	2	Divisa	64.84	129.68
	Valve Refacer	1	Tonosí	476.00	476.00
	Valve Seat Grinder	1	Tonosí	210.00	210.00
	Power Timing Light	1	Tonosí	25.00	25.00
					<u>3,712.90</u>
				<u>TOTAL</u>	<u>64,222.80</u>

- 3 -

X Of this amount \$ 682.90 was paid by check to the Contractor for his comission. This payment was authorized by A.I.D. by means of letter No. 67-58 of July 8, 1966.

XX The rice harvester, pull-type, was not accepted by the Project for not complying with the specifications.

The Contractor Interpan, S.A., sent a check for the amount of B/ 3,997.50 representing the value of the rice harvester. AID was informed of this operation by our letter No.12-28 of August 9/1966. Such amount was deposited in the Bank account "MACI-Proyecto de Desarrollo Agrícola-Préstamo AID 525-L-010" according to instructions from AID, by its letter No. 67-348 of Aug. 22/1966.

Ministry of Agriculture, Commerce and Industries
 Project of Agricultural Development
 AID Loan No 525-L-010

Equipment acquired under Excess Property, by value and destination

<u>Description</u>	<u>Quantity</u>	<u>Destination</u>	<u>Unit Value</u>	<u>Total Value</u>
Industrial Tractor	1	Divisa	398.00	398.00
Tractor D-7	1	Centro Piloto	2,736.00	2,736.00
Truck Cargo	6	Alanje, Tonosi Toabre, Montijo Sta. Rita y Sardinilla	911.83	5,471.00
Welding Machine	1	Tonosi	237.00	237.00
Semi Trailer	1	Centro Piloto	480.00	480.00
Compresores	3	Tonosi, Alanje Montijo	121.00	363.00
Truck Dodge 3/4 ton.	1	Toabre	563.00	563.00
Truck Dodge 3/4 ton	1	Montijo	563.00	563.00
Compressor	1	Divisa	627.00	627.00
Jeep utility	9	Toabre	304.78	2,743.00
Truck Dodge 3/4 ton	1	Toabre	563.00	563.00
Centrifugal pumps	4	Toabre, Divisa	1,350.00	5,400.00
Jeep utility	7	Tonosi, Montijo Alanje, Sta. Rita	301.00	2,107.00
Tractor D-6	1	Centro Piloto	2,094.00	2,094.00
Generador	1	Toabre	380.12	380.12
Air compressor	1	Alanje	149.00	149.00
Air Compressor	1	Toabre	184.00	184.00
Tractor D-7	1	Centro Piloto	2,736.00	2,736.00
Jeep utility	2	Sardinilla	392.00	784.00
Transporte y flete	-	Seis areas	3,528.00	3,528.00
Air compressor	1	Montijo	258.00	258.00
Jeep utility	2	Divisa	784.00	784.00
Compressor	1	Montijo	74.00	74.00
Tractor Caterpillar	1	Centro Piloto	1,832.06	1,832.06
Centrifugal pump	1	Sardinilla	372.75	372.75
Air compressor	1	Tonosi	435.60	435.60
Transporte y flete	-	Seis areas	57.69	57.69
Transporte y flete	-	Seis areas	110.99	110.99
Transporte y flete	-	Seis areas	2,919.82	2,919.82
T O T A L			38,951.03	

ANNEX II
EXHIBIT 4

Attachment No 20 Cont.

DESCRIPTION	RESOLUTION NO	RESOLUTION DATE	PURCHASE ORDER NO	RELATED BID	page 4 of 5 B/.	AREA
Material for construction	721	Sept. 27/66	126	11	128.50	Divisa
Material for construction	761	Oct. 13/66	134	11	52.16	Divisa
Scale	760	Oct. 13/66	135	11	280.14	Divisa
Collectors	791	Oct. 20/66	139	11	470.00	Divisa
Material for construction	798	Oct. 21/66	140	11	226.88	Divisa
Material for construction	805	Oct. 26/66	141	11	307.30	Divisa
Material for construction	804	Oct. 26/66	142	11	94.80	Divisa
Material for construction	808	Oct. 26/66	143	11	207.20	Divisa
Material for construction	803	Oct. 26/66	144	11	350.00	Divisa
Material for construction	817	Oct. 29/66	145	11	172.50	Divisa
Material for construction	832	Nov. 11/66	157	11	32.54	Divisa
Equipment for potable water system	844	Nov. 17/66	158	2	458.00	Alanje
Equipment for potable water system	839	Nov. 17/66	159	2	286.00	Alanje
Material for construction	853	Nov. 22/66	172	11	195.50	Divisa
Refrigeration equipment	852	Nov. 22/66	173	40	378.00	Sta. Rita
Refrigeration equipment	851	Nov. 22/66	174	5	378.00	Tonosí
Refrigeration equipment	862	Nov. 24/66	176	28	491.00	Toabré, Tonosí and Sta. Rita
Material for Seed Center	876	Dic. 1/67	178	11	109.80	Divisa
Material for construction	892	Dic. 12/66	179	11	71.14	Divisa
Material for construction	890	Dic. 12/66	180	11	30.00	Divisa

Ministry of Agriculture, Commerce and Industries

Agricultural Development Project

AID Loan No 525-L-010

Direct Purchase Orders

DESCRIPTION	RESOLUTION NO	RESOLUTION DATE	PURCHASE ORDER NO	RELATED BID	VALUE B/.	AREA
Material for drilling potable water well	759	Oct. 13/66	n.n.	23	114.54	Alanje
Refrigeration equipment	Cg 264	Apr. 5/66	74	23	3,522.55	A D T
Equipment for vehicles	389	Jun. 9/66	79	23	168.00	A T
Equipment for potable water system	456	Jul. 6/66	88	5	250.00	Tonosí
Materials for construction	399	Jul. 16/66	83	2	98.37	Alanje
Equipment for potable water system	511	Jul. 25/66	89-A	28	355.20	Toabré
Equipment for potable water system	550	Aug. 5/66	92	5	475.60	Tonosí
Equipment for potable water system	553	Aug. 9/66	93	28	305.00	Toabré
Equipment for potable water system	643	Sep. 2/66	113	2-A	316.50	Alanje
Equipment for mechanics shop	653	Sep. 7/66	114	9	180.00	Divisa
Material for construction	721	Sep. 27/66	127	11	56.48	Divisa
Material for construction	731	Sep. 30/66	103	11	413.50	Divisa
Material for construction	721	Sep. 27/66	125	11	198.30	Divisa

ANNEX II
EXHIBIT 4

Attachment No 20 Cont.

DESCRIPTION	RESOLUTION NO	RESOLUTION DATE	PURCHASE ORDER NO	RELATED BID	VALUE B/	of 5	AREA
Material for construction	721	Sept. 27/66	126	11	128.50		Divisa
Material for construction	761	Oct. 13/66	134	11	52.16		Divisa
Scale	760	Oct. 13/66	135	11	280.14		Divisa
Collectors	791	Oct. 20/66	139	11	470.00		Divisa
Material for construction	798	Oct. 21/66	140	11	226.88		Divisa
Material for construction	805	Oct. 26/66	141	11	307.30		Divisa
Material for construction	804	Oct. 26/66	142	11	94.80		Divisa
Material for construction	808	Oct. 26/66	143	11	207.20		Divisa
Material for construction	803	Oct. 26/66	144	11	350.00		Divisa
Material for construction	817	Oct. 29/66	145	11	172.50		Divisa
Material for construction	832	Nov. 11/66	157	11	32.54		Divisa
Equipment for potable water system	844	Nov. 17/66	158	2	458.00		Alanje
Equipment for potable water system	839	Nov. 17/66	159	2	286.00		Alanje
Material for construction	853	Nov. 22/66	172	11	195.50		Divisa
Refrigeration equipment	852	Nov. 22/66	173	40	378.00		Sta. Rita
Refrigeration equipment	851	Nov. 22/66	174	5	378.00		Tonosí
Refrigeration equipment	862	Nov. 24/66	176	28	491.00		Toabré, Tonosí and Sta. Rita
Material for Seed Center	876	Dec. 1/67	178	11	109.80		Divisa
Material for construction	892	Dec. 12/66	179	11	71.14		Divisa
Material for construction	890	Dec. 12/66	180	11	30.00		Divisa

DESCRIPTION	RESOLUTION NO	RESOLUTION DATE	PURCHASE ORDER NO	RELATED BID	VALUE B/.	AREA
Material for construction	891	Dic. 12/66	181	11	41.02	Divisa
Material for construction	935	Dic. 22/66	182	11	298.50	Divisa
Material for construction	937	Dic. 22/66	183	11	195.44	Tonosí
Material for construction	936	Dic. 22/66	184	11	302.09	Divisa
Material for construction	8	Jan. 5/67	185	6	857.20	Divisa
Material for construction	8	Jan. 5/67	186	6	99.96	Divisa
Material for construction	8	Jan. 5/67	187	6	24.00	Divisa
Material for construction	7	Jan. 5/67	188	11	51.20	Divisa
Material for construction	7	Jan. 5/67	189	11	65.00	Divisa
Material for construction	2	Jan. 3/67	190	11	140.00	Tonosí
Material for construction	22	Jan. 10/67	191	6	66.90	Divisa
Irrigation equipment	80	Feb. 2/67	193	5	325.00	Tonosí
Materials	81	Feb. 2/67	194	11	216.44	Divisa
Material for construction	101	Feb. 14/67	195	40	199.98	B. Vista
Materials	152	Feb. 27/67	196	11	20.00	Divisa
Materials	156	Feb. 28/67	197	11	19.10	Divisa
Materials	156	Feb. 28/67	198	11	17.50	Divisa
Materials	156	Feb. 28/67	199	11	103.00	Divisa
Service Order	148	Feb. 27/67	199	23	40.00	Divisa
Mirrors	175	Mar. 6/67	203	11	45.50	Divisa
Materials	219	Mar. 17/67	204	11	43.00	Divisa
Materials	219	Mar. 17/67	205	11	294.48	Divisa

DESCRIPTION	RESOLUTION NO	RESOLUTION DATE	PURCHASE ORDER NO	RELATED BID	VALUE B/	AREA
Materials for construction	219	Mar. 17/67	206	11	61.67	Divisa
Fire extinguisher	259	Mar. 31/67	207	11	216.00	Divisa
Equipment for Seed Center	274	Apr. 7/67	210	11	459.00	Divisa
Vacuum cleaner	277	Apr. 11/67	211	11	463.90	Divisa
Irrigation pipe	287	Apr. 14/67	212	46	475.20	Sta. Rita
Machinery equipment	308	Apr. 19/67	213	9	175.93	C. Piloto
Irrigation pipe	304	Apr. 19/67	214	46	419.64	Sta. Rita
Water connection	364	May 9/67	217	40	125.00	Sta. Rita
Seed equipment	409	May 23/67	221	11	349.00	Divisa
Laboratory equipment	405	May 22/67	222	11	348.30	Toabre
Laboratory equipment	415	May 24/67	223	31	184.00	Toabre
Household equipment	457	June 12/67	224	40,51,52	298.50	Sta. Rita, Sardinilla & Montijo
Water connection	467	June 15/67	225	2	251.85	Alanje
Materials for construction	539	July 10/67	230	40	464.10	Sta. Rita
Equipment for potable water system	538	July 10/67	231	52	298.50	Montijo
Equipment for potable water system	513	July 3, 57	232	52	325.00	Montijo
Equipment for potable water system	512	July 3/67	233	51	186.00	Sardinilla

DESCRIPTION	RESOLUTION NO	RESOLUTION DATE	PURCHASE ORDER NO	RELATED BID	VALUE B/.	AREA
Air conditioner	511	July 3/67	234	10	230.00	Divisa
Electric installations	510	July 3/67	235	51	239.00	Sardinilla
Laboratory equipment	557	July 13/67	236	10	150.00	Divisa
Refrigeration equipment	447	June 7/67	237	62	2,898.00	Sta. Rita, Sardinilla & Montijo
Refrigeration equipment	447	June 7/67	238	62	1,625.00	Sta. Rita, Sardinilla & Montijo
Installation of air condition unit	581	July 21/67	239	50	350.00	Sta. Rita
Material for construction	674	Sept. 8/67	240	52	93.04	Montijo
Material for construction	674	Sept. 8/67	241	52	108.00	Montijo
Installation of Refrigeration eq.	835	Oct. 27/67	247	40	485.00	Sta. Rita (Capira)
Installation of Refrigeration eq.	175	Mar. 14/68	248	40	485.00	Sta. Rita (El Valle)
Installation of Refrigeration eq.	150	Mar. 8/68	249	51	150.00	B. Vista
				T O T A L	<u>B/.26,353.44</u>	

Panama, March 31, 1968

Ministry of Agriculture, Commerce and Industries
Project of Agricultural Development
AID Loan No 525-L-010

Documentation Showing the use of the Initial \$350,000
Revolving Fund Established from Original Proceeds
AID Loan No 525-L-010

Reimbursement No 21 from MACI to AID	\$ 72,132.20
Reimbursement No 22 from MACI to AID	140,683.15
Reimbursement No 23 from MACI to AID	88,161.31
Handling and Freight (Excess Property)	110.99
Handling and Freight (Excess Property)	57.69
Reimbursement No 24 from MACI to AID	44,907.38
Handling and Freight (Excess Property)	2,919.82
Reimbursement No 25 from MACI to AID	1,027.46
	<hr/>
T O T A L	\$ <u>350,000.00</u>

Panama, March 31, 1968

DEPARTMENT OF STATE
AGENCY FOR INTERNATIONAL DEVELOPMENT
WASHINGTON, D. C. 20523

STATEMENT OF DISBURSEMENTS APPLIED UNDER LOAN AGREEMENT

MARCH 31, 1968

NUMBER 525-L-010

MINISTER OF AGRICULTURE COMMERCE AND INDUSTRY
PANAMA REPUBLIC OF PANAMA

DATE	DA VOUCHER	PAYEE	AMOUNT
3-27-68	02 3820	BANCO NACL DE PANAMA	4,843.45
TOTAL REPORTED THIS PERIOD			\$ 4,843.45
TOTAL PREVIOUSLY REPORTED			2,395,156.55
TOTAL DISBURSEMENTS 03/31/68			\$ 2,400,000.00
LESS PRINCIPAL REPAYMENTS			
UNPAID BALANCE 03/31/68			\$ 2,400,000.00



Robert S. Spencer
ROBERT S. SPENCER
CHIEF, INTERNATIONAL LOAN BRANCH
ACCOUNTING DIVISION
OFFICE OF THE CONTROLLER

Ministry of Agriculture, Commerce and Industries
 Project of Agricultural Development
 AID Loan No 525-L-010

Balance Sheet of the Various activities under Loan Agreement

ACTIVITIES	BUDGETED	CASH DISBURSEMENT	EXCESS PROPERTY	LETTER OF COMMITMENT	TOTAL	BALANCE
Activity 1º Extension Support	960,000.00	1,002,539.72	21,998.00	9,633.28	1,034,171.00	(74,171.00)
Project Alanje	236,000.00	223,989.64	2,610.90	1,793.75	228,394.29	
Project Tonosi	99,525.00	105,989.13	2,833.49	5,461.00	114,283.62	
Project Toabre	158,775.00	170,244.89	8,872.03	2,378.53	181,495.45	
Project Sta. Rita	211,125.00	205,649.66	2,340.88	--	207,990.54	
Project Sardinilla	104,975.00	121,055.95	1,983.80	--	123,039.75	
Project Montijo	149,600.00	175,610.45	3,356.90	--	178,967.35	
Activity 2º DIVISA	270,000.00	269,650.38	16,953.03	54,589.52	341,192.93	(71,192.93)
Tools and Equipment INA	70,000.00	72,327.76	6,247.90	1,565.49	80,141.15	
Seed Center	50,000.00	91,135.53	--	10,562.78	101,698.31	
Custom Farm Machinery Center	150,000.00	106,187.09	10,705.13	42,461.25	159,353.47	
Activity 3º LIVESTOCK CREDIT	965,000.00	836,211.93	--	--	836,211.93	128,788.07
Livestock Credit IFE	--	--	--	--	--	
Bulls	325,000.00	224,578.82	--	--	224,578.82	
Pasture	200,000.00	293,717.65	--	--	293,717.65	
Potable water	100,000.00	34,771.36	--	--	34,771.36	
Farm Improvement	125,000.00	47,565.95	--	--	47,565.95	
Corn and Cowpea	160,000.00	122,285.90	--	--	122,285.90	
Heifers	55,000.00	113,292.25	--	--	113,292.25	
Activity 5º PURE SEED PROG.	100,000.00	100,000.00	--	--	100,000.00	---
Certified Seed	100,000.00	100,000.00	--	--	100,000.00	---
Contingency	105,000.00	88,424.14	--	--	88,424.14	16,575.86
T O T A L S	<u>2,400,000.00</u>	<u>2,296,826.17</u>	<u>38,951.03</u>	<u>64,222.80</u>	<u>2,400,000.00</u>	<u>---</u>

Panama, March 31, 1968

PROPOSAL FOR AID FINANCING OF AGRICULTURAL TECHNICAL
ASSISTANCE TO THE SECOND PHASE DEVELOPMENT PROGRAM OF THE
REPUBLIC OF PANAMA

ANNEX II
EXHIBIT 24

Page 1 of 20

I.- APPLICANT

1. Official name

Ministerio de Agricultura, Comercio e Industrias

2. Type of entity

The Ministry of Agriculture, Commerce and Industries is a governmental agency. It is one of the departments of the Executive branch of government.

3. Date of establishment

A governmental agency to deal with problems in agriculture was established well over fifty years ago as a section in the Secretaría de Fomento (Secretariat of Development) which later became the Secretaría de Obras Públicas (Secretariat of Public Works). Recognition of the increasing importance of agriculture was given in 1932 with the substitution of the name Secretaría de Agricultura y Obras Públicas (Secretariat of Agriculture and Public Works).

The agriculture program was transferred in 1936 to the Secretaría de Educación (Secretariat of Education) the name of which was then changed to Secretaría de Educación y Agricultura (Secretariat of Education and Agriculture).

Four years later a new cabinet department was created with main responsibilities in the field of agriculture. The original name of Secretaría de Agricultura y Comercio (Secretariat of Agriculture and Commerce) given by Law No. 5 of September 16, 1940 was changed a year later to Ministerio de Agricultura y Comercio (Ministry of Agriculture and Commerce) in a general action that affected all units of the Executive branch.

The present name of Ministerio de Agricultura, Comercio e Industrias (Ministry of Agriculture, Commerce and Industries) was adopted by Legislative Decree No. 1 of June 15, 1945.

4. The principal purpose of the Ministry of Agriculture, Commerce and Industries involves the achievement of two objectives:
 - a) the greatest possible welfare of the farming population and the most rapid social and economic development of the agricultural sector, to levels comparable with other sectors of the economy; and
 - b) the maximum use of natural resources to a level compatible with their adequate conservation
5. Organization charts of the Executive branch of the government and of the Ministry of Agriculture, Commerce and Industries are herewith attached.

The following list includes the technical departments of the Ministry of Agriculture, Commerce and Industries that are more closely concerned with the Rural Development Program. Mention is made of the top staff members in each case.

Aseoría de Divulgación Agrícola (Agricultural Extension Adviser)

Pedro A. Gordón, Asesor Nacional (National Advisor). Ingeniero Agrónomo. Instituto Tecnológico y de Estudios Superiores Monterrey, México; M. S., Instituto Interamericano de Ciencias Agrícolas, Turrialba, Costa Rica.

Luis Carlos Berrocal, Supervisor. Ingeniero Agrónomo (Agricultural Engineering). Instituto Tecnológico y de Estudios Superiores Monterrey, México.

Armando Lorenzo, Supervisor de Clubes 4-S (4-S Program Supervisor). Agricultural Engineering, Panama University.

Josefina Alba, Supervisora de Agentes del Hogar (Home Improvement Program Supervisor). Bachiller en Economía Doméstica (Home Economics Graduate). Escuela Profesional (Professional School), Panamá.

Asesoría de Investigaciones Agropecuarias y Fitotecnia (Agricultural Research and Plant Science Advisor)

Ezequiel Espinosa, National Adviser. B. S. University of Puerto Rico; M. S. Agricultural and Mechanical College of Texas.

Rodrigo Tartés, Horticultor (Horticulturist). B. S. University of Puerto Rico; M. S. University of California.

Rogelio Cuéllar, Entomólogo y Fitopatólogo (Entomologist and Plant Pathologist) Chief of Plant Quarantine

Asesoría en Zootecnia (Animal Science Advisor)

Pablo Quintero, Veterinario-Zootecnista (Animal Husbandman and Veterinary). Universidad Autónoma de México. National Adviser).

Asesoría en Forestales (Forestry Advisor)

Enrique E. Mayo, National Adviser, M. S. Inter-American Institute of Agricultural Sciences, Turrialba, Costa Rica.

Ricardo Gutiérrez, Agricultural Engineering, University of Buenos Aires, Argentina.

Asesoría en Agrología (Soils Advisor)

Reinmar Tejeira, National Adviser. B. S. University of Florida; M. S., Ph D., Ohio State University.

Asesoría en Mercadeo (Marketing Advisor)

Cándida de Hoquee, National Adviser. Licenciada en Administración Pública y Comercio. Bachelor of Public Administration and Commerce, University of Panama.

Asesoría en Sanidad Animal (Veterinary Advisor)

Gerardino Medina, National Adviser and Chief of Veterinary Laboratory. Doctor en Medicina Veterinaria (D.V.M.) Universidad Nacional de Colombia.

Aristóbulo Carrizo, Médico en Veterinaria, (D.V.M.) Universidad de Sao Paulo, Brazil.

Instituto Nacional de Agricultura (National Institute of Agriculture, Divisa)

Manuel E. Sayavedra, Director, Ingeniero Agrónomo, B. S., A. & M. College of Texas

Jorge A. Carles, Director de la Escuela Nacional de Agricultura. Director of the National School of Agriculture. Professor.

Raúl L. Luaces. Director del Centro de Adultos (Director of the Adult Center).

Departamento de Programación (Program Advisor)

Bernardo Ocaña, Director. B. S., Iowa State University; M. S. University of Florida.

Gémino K. Vargas, Coordinador de Directores Regionales, Ingeniero Agrónomo (Coordinator), B. S. Louisiana State University, E.E.U.U.

Rogelio E. de Ycaza, Director de Operaciones (Director of Operations). B.S., New York State College of Agriculture at Cornell University.

José L. Pacheco C., Planificador. Ingeniero Agrónomo (Chief Planning Officer) (Agricultural Engineering). Instituto Tecnológico de Estudios Superiores, Monterrey, México.

6. Execution of Project

The Applicant plans itself to execute the project, except for contractual services of private firms for the feasibility studies and construction of irrigation works.

II.- PROJECT

1. Nature, size and location of project

The nature of the project is primarily one of technical assistance to farmers. The general purpose is to increase both total agricultural production and productivity, in terms of yield per hectare and per person employed, because of the multiple effect of the joint and simultaneous rendering of other complementary public services.

Technical assistance in agriculture is part of the larger Rural Development Program which includes, in addition to activities outlined here, other public services such as transportation facilities, mainly roads ; public water supplies, including wells and irrigation systems; self-help housing programs; health centers and health mobile units; schools and education; agricultural credit and marketing facilities.

The agricultural technical assistance phase of the Rural Development Program, which constitutes the matter of the present project, is essentially one of education, advice, and backstopping to farmers, to help them become better operators, more efficient producer and worthier citizens, whose contribution grows ever larger to their

family welfare, their community advancement, and the national economy.

Loan funds for technical assistance in agriculture cover twelve (12) different investment activities which are summarized below:

1. Extension Support		
- Six New Priority Areas-		980,000
2. Minor Irrigation Works		350,000
3. Supervised Agricultural Credit		1,000,000
4. Adult Education		
- Two Training Centers -		150,000
5. Agricultural Vocation Education		
National Institute of Agriculture at Divisa		525,000
Dormitories	150,000	
Kitchen and mess hall	100,000	
Laundry	50,000	
Dairy Products Laboratory	50,000	
Meat Laboratory	25,000	
Hog Shed Expansion	25,000	
Water tank and pipes	25,000	
Seed Storage Rooms	25,000	
Three "Duplex" houses	75,000	
	<u>525,000</u>	
6. Marketing Support		60,000
- Two canning centers -		
7. Seed Storage facilities in Chiriqui		75,000
8. Crop Forecasting and Market Information Services		50,000
9. Custom Farm Machinery Pool		125,000
10. Potatoes and Onions Drying and Storing		20,000
11. Technical Assistance in Supervised Agricultural Credit		75,000
12. Contingency		<u>155,000</u>
		<u>B/3,565,000</u>

1. EXTENSION SUPPORT

B/980,000

This activity includes specifically the costs of fixed capital investments in institutional buildings (Central Offices; Warehouse and Shop; Marketing Centers; Bachelor's Quarters; Extension Office); laboratory, office and field equipment, four-wheel drive vehicles; agricultural machinery, equipment and tools.

Total costs of investments are estimated at B/ 980,000 to be invested in three (3) years. Government counterpart contribution are estimated at B/ 3,044,000 over a period of five (5) years, with an annual average of B/608,000, reaching the maximum contribution during the fifth year of the program.

2. MINOR IRRIGATION WORKS

B/350,000

This activity includes small river dams to supply water for agricultural uses both during the dry season and during drouth periods in the rainy season. Irrigation areas will vary in size from 50 to 250 hectares. Simple designs of minor irrigation works will be produced by the Agricultural Engineers of the Ministry in cooperation with the local Extension Agents. Total costs for government counterpart contribution are estimated at B/250,000 during five years, for an average of B/50, per year, reaching the maximum contribution during the fifth year.

3. SUPERVISED AGRICULTURAL CREDIT

B/1,000,000

This activity refers both to livestock credit for cattle-growers not owing more than 60 (sixty) breeding cows; and to crop farmers for corn and cowpeas not having any other collateral to offer except the crop. The livestock credit will be devoted to finance primarily the purchase of bulls, drilling wells and providing stock quarter, rehabilitation of old and establishment of new pastures, general cattle farm improvement, acquisition of heifers, limited to the paying capacity of cattle-growers not owing more than 60 (sixty) breeding cows.

Government counterpart contribution in technical assistance is estimated at B/375,000 for an annual average of B/75,000..

The Instituto de Fomento Económico (IFE) will provide the necessary banking services and facilities required for the execution of this activity.

4. ADULT EDUCATION

B/150,000

This activity proposes to establish two Adult Centers, adequately conditioned and equipped for training adult farmers, in short, intensive course, dealing with specific farming practices. The acceleration of farmers' training is thus intended, complementing general teaching efforts of the Extension Service. One center will be established in the

in the province of Chiriquí and the other one in the province of Panamá, preferably in the town of Capira. Government counterpart contribution is estimated B/180,000 in a period of five (5) years.

5. AGRICULTURAL VOCATIONAL EDUCATION B/ 525,000

This activity will be totally conducted within the grounds of the Instituto Nacional de Agricultura at Divisa, with the primarily purpose of expanding the National School of Agriculture.

This School offers teaching to students at high school levels in agricultural vocational education. At present, the enrollment capacity is limited to 125 students with an annual promotion reaching only 25 graduates. This activity intends to improve education as well as to double enrollment and treble the number of graduates.

Dormitories.-

Additional dormitory accommodations will be constructed for 100 new students. The dormitories are simple in design but functional and comfortable. Rooms will take two and four students each. The buildings will all be one story, floor level, connected by adequately protected passage way.

Government counterpart contribution includes instructors and teaching material, etc., amounting to B/150,000 in a period of five years.

Dining Room

An adequately equipped and comfortable mess hall will be constructed including a kitchen and kitchen equipment and accessories. Capacity is estimated at 150 persons.

Government counterpart contribution is estimated at B/100,000 in a period of five years.

Laundry

New laundry facilities need to be installed with a capacity for 300 persons. The physical plant will be provided with new, modern equipment for different purposes and different garments and clothes.

Government counterpart contribution will amount to B/45,000 in a period of five years for maintenance and operational expenses.

Dairy Products Laboratory

This plant will reinforce and improve teaching methods and opportunities. The plant will milk and dairy products for practical as well as laboratory instructions in the production of butter, cheese, ice-cream, and other dairy products and by-products and its processing.

Government counterpart contribution amounts to a total of B/100,000 over a period of five years.

Hog Shed Expansion

This activity intends to expand existing facilities for the breeding and raising of hogs. Hog population in the country has been steadily declining during the last seven years. However, the price of pork meat is very attractive, and the demand for it is firm and growing. The expanded facilities will make possible the breeding and raising of purebred sires and dams to sell to interested hog raisers.

Government counterpart contribution is estimated at B/40,000 over a period of five years.

Water Tank and Pipes

The population living on the grounds at Divisa has been increasing in numbers, students, professors and administrative personnel as well. This has resulted in a shortage of potable water and low pressure in water lines and pipes. This activity intends to install a new water tank of 50,000 gallons capacity plus the necessary water lines and pipes to cover existing as well as new homes and increase faucet pressure.

Government counterpart contribution is estimated at B/15,000 over a period of five years.

Additional Seed Storage Facilities

A new Seed Center has recently been in operation in Divisa, thanks to AID Loan No. 525-L-010. The Seed Warehouse is too small for the plant capacity. However, at the Seed Center instructions are imparted as to purity, quality, germination of seed as well as all of the processing steps including drying, cleaning, grading, treating, sacking, storing, and conservation of seed. Three new warehouses are to be directed to take care of 10,000 quintals.

Government counterpart contribution is estimated at a total of B/15,000 over a period of five years.

Residence for Professors

The number of teaching personnel has been increasing during recent years, and are due to increase in number because of the execution of this project, that is, because of expanded facilities that will increase enrollment substantially. This activity intends to build three new houses "duplex" type, two with two-room apartments. The additional housing will attract more competent personnel.

Government counterpart contribution is estimated at B/5,000 over a period of five years, particularly for maintenance expenses.

6. MARKETING SERVICES

B/ 50,000

Accumulation of seasonal surplus is frequent, particularly in the case of perishable fruits and vegetables. Utilizing part of production, however small for processing, brings higher prices for the whole crop. It also makes available these products to consumers long after harvest. This activity intends to establish two small canning centers, in two widely separate sections of the country. Semi-elaboration of products will be effected as well as canning and preserving.

Total government counterpart contribution is estimated at B/50,000 over a period of five years.

7. SEED STORAGE

The main Ministry's seed storage facilities are located at Divisa, significant only to the Central Provinces region of the country. Similar facilities are needed for the Province of Chiriquí, where mechanization of agriculture has attained levels much above the rest of the country. Improved, certified seed in quantities adequate to demand is a must for increased agricultural production and productivity. This activity intends to establish a seed warehouse in the Province of Chiriquí of an adequate capacity.

Total government counterpart contribution is estimated at B/40,000 over a period of five years.

8. CROP FORECASTING AND MARKET INFORMATION SERVICES B/50,000

This activity intends to reinforce an existing information service on prices and markets, expanding it to cover a wider area and a more diverse number of products, in a reliable and permanent manner. This activity also intends to establish a crop forecasting service, so as to anticipate levels of production for the main crops, particularly grain crops and crops which margin between production and consumption is very narrow. Such knowledge will permit government to take prompt, timely and adequate measure, in case of surplus or deficits. This activity will be executed in coordination with the Census and Statistics Department.

Total government counterpart contribution is estimated at B/90,000 over a period of five years.

9. CUSTOM FARM MACHINERY POOL

B/125,000

There is a large standing demand for agricultural machinery services, which can not always be met by private enterprises in adequate form and at reasonable prices. AID Loan 525-L-010 permitted the establishment of a small custom farm machinery pool centrally located at Divisa.

The Farm Machinery Center will serve a double purpose by training farmers on machinery use, repair and conservation and promoting incentive to production by establishing attractive price rates. The existing machinery pool has proved to be a success and yet not able to fulfill the demand.

A new custom farm machinery center will be located either at Santiago in the Province of Veraguas or at Las Tablas in the Province of Los Santos.

Total government counterpart contribution is estimated at B/250,000 over a period of five years.

10. POTATOES AND ONIONS DRYING AND STORING B/ 20,000

Keeping of onions and potatoes has been a significant obstacle for a production increase of these two products. Climate at harvest time and for a time thereafter does not help. Drying is part of the problem.

This activity intends to establish drying facilities for onions and washing and drying facilities for potatoes. Physical facilities will be small but adequate in capacity, serving as a demonstration to neighboring farmers. It is also expected that agricultural cooperatives will learn and then establish their own facilities. Private enterprise and individual farmers are also expected to learn the methods of drying and storing onions and potatoes.

Total government counterpart contribution is estimated at B/36,000 over a period of five years.

11. TECHNICAL ASSISTANCE IN SUPERVISED AGRICULTURAL CREDIT B/ 75,000

The Ministry is now well involved in Supervised Agricultural Credit because of the execution of the livestock credit activity in terms of present AID Loan 525-L-010. The present project entails the use of B/1,000,000 in credit activities, over a period of three years. MACI's personnel involved in credit require more extensive training and knowledge in supervised agricultural credit. This activity intends to provide for the required foreign technical assistance by recruiting competent experts to train local personnel.

Total government counterpart contribution is estimated at B/45,000 over a period of five years.

12. CONTINGENCY

It is difficult to anticipate and define all of the needs over Rural Development Program of this nature. Contingencies may well arise during the execution of the project. Loan application of this type usually considers this possibility

and, consequently, some provision in this loan should be included for contingencies.

Technical Assistance in Agriculture

The project envisages several lines of activity that are mutually complementary and need agreement and coordination at the national level and again locally within each development area. They belong to agencies already established in the Ministry of Agriculture but these have to be strengthened with particular reference to the selected areas. Mention is made hereinafter of ten specific activities of technical assistance that will be carried out.

1. Research

This activity will seek practical solutions to problems confronted by farmers in crop and cattle production. Agricultural research work will be conducted at experiment stations and on private farms with local cooperators. Results will be made known by demonstrations, field days, farmers bulletins, and instructional leaflets, primarily through the extension service.

2. Soil and Land-Use Capability Studies

The services provided under this line of activity are aimed at obtaining the best possible use of natural resources, mainly soils, in a manner compatible with good conservation practices.

Soil surveys and mapping will be intensified with qualified field crews to do the job rapidly and in accordance with universally recognized standards. The development areas included in this project will be studied in the proper order of priority.

Mention should be made of the fact that a good portion of the work has already been done.

Soils and land-use capability studies will be greatly accelerated and benefitted by the decision of the Agrarian Reform Commission to contract for a rural cadaster and an inventory of soils and water.

One of the expected results of this activity is the more efficient use of soils, with allocation of new or presently grown

crops, and a substantial increase in productivity with improved all-around farming practices.

This line of activity will be carried out under the responsibility of the Department of Forests and Soils.

3. Extension

The project will engage in the two recognized basic tasks of an Extension Service: 1) the dissemination of useful and practical information relating to agriculture and home economics, and 2) the practical application of such knowledge to farm and home situations. This should result in a more efficient farming by improved technology, and consequently a higher standard of family living.

The farms and homes included in the six project areas are now served by 5 extension offices. The general plan is to establish 10 additional extension offices fully staffed, making a total of six development areas, by the end of 1972.

This line of activity will be carried out under the responsibility of the Department of Agricultural Extension.

4. Subject-matter backstopping

Specialized knowledge is required to meet the more demanding farming problems which extension agents are not in a position to solve by themselves. Backstopping from the proper number and type of specialists will be available to the extension program, particularly in the fields of livestock agronomy, engineering, and marketing.

The areas are now only partly served by specialized backstopping. It is the intention that by 1972 all six areas, and the extension programs in action, will be offered subject-matter backstopping by specialists in the fields of pest control, fertilization, and other agronomic practices, as well as sanitation, feeding, management, and other livestock practices. This activity calls for joint efforts at the local level by personnel assigned to field offices, properly coordinated through and with the extension program.

Subject-matter backstopping will be given primarily by the Department of Plant Science, Animal Science, Veterinary Medicine, and other technical departments as required.

5. Adult Education

Education of farmers and homemakers is primarily a task of the extension service, including rural youth who on time will become the adults of the community. Adult education is a slow process and must be accelerated, particularly in a country where illiterates constitutes a larger percentage of the rural population and where farming practices are still very primitive.

Adult farmers' and homemakers' training will be conducted at properly equipped training centers. As of now, there is only one adult training center in operation at Divisa as an annex to the vocational Agricultural School. It is not located within any of the six areas, but conducts short courses to which participants come from all over the country. Qualified instructors are provided by the staff of the School and other technical agencies specifically related to individual courses.

The plan is to establish two new such centers: one near Alanje and another one at Santa Rita. Intensive, short-courses, usually of one week duration, will be offered to progressive farmers and homemakers dealing with specific problems.

This line of activity will be carried out under the responsibility of the National School of Agriculture, Divisa.

6. Seed and plant-material increase

Good agriculture starts with good seed. The availability of good, viable seed of high-yielding varieties, at the proper time, is a problem of major consideration for the farmers in Panamá. Not infrequently have recommended varieties of crops and pastures missed acceptance on the part of the farmers due lack of seed. This also true of recommended varieties of fruit and forest trees.

At David, an outstanding grain producing district located in the Chiriquí Province, a seed center will be established to handle, classify, size, treat, pack, store, and distribute seed of improved varieties of corn, rice, and edible cowpeas. This seed center will eventually handle enough volume to help meet the demands of other development areas.

This line of activity will be carried out under the responsibility of the Department of Plant Science.

7. Engineering Services

Agricultural Engineering has become highly important as a result of mechanized farming, artificial irrigation, drainage and conservation of natural resources. It is difficult to conceive, establish and operate an agricultural enterprises of appreciable size without engineering assistance.

At Santiago or Las Tablas heavy equipment services will be made available, particularly for clearing land, removing stumps and large rocks, and levelling jobs to facilitate and promote mechanized farming, including the use of animal-drawn implements.

Technical assistance will be available to farmers interested in small size, gravity irrigation systems. Feasibility studies will be contracted for on larger tracts of land for irrigation. Actual construction works, where feasibility studies merit it, will also be contracted for.

Engineering services for preparing specifications, evaluating bids, and supervising the construction phase will be provided by and through the Advisor of Agricultural Engineering. In general, the lines of activities as described here will be carried out under the responsibility of the Advisor of Agricultural Engineering.

8. Marketing

Wide price fluctuations of agricultural commodities from one community to another, and from month to month, are generally due to deficiencies of the marketing process. It is not unusual that farmers do not get the best prevailing prices at harvest time, neither do they benefit from higher prices after the peak of the harvest season, particularly in the case of more perishable products like fruits and horticultural produce.

A marketing center and two canning centers will be established providing marketing services and practical training facilities which include teaching the farmers about harvesting, selection, treatment, packing, and transportation of local agricultural products in order to obtain better prices.

Efficient and coordinated action will be necessary to attain the desired goal. Specialized personnel will offer training and assistance in the general problems of marketing.

Two processing centers will be established for canning, preserving and processing fruits and vegetables.

This line of activity will be carried out under the responsibility of the Advisor of Agricultural Economics and Marketing.

9. Cooperatives

The advantages of cooperative action among farmers to solve their common problems and obtain common benefits are well known. The encouragement and supervision of cooperative associations will contribute effectively to the success of the development program. Efforts to increase total production and improve productivity, per man and per hectare, will be favored by a strong cooperative program.

At the beginning, educational endeavours in the field of cooperatives will be a hard task. Generally low cultural and educational levels and a high degree of illiteracy is a stumbling block which will take time and efforts to overcome. Slow but steady and continuous progress is desirable in this field of action. Cooperative efforts will be directed particularly towards the fields of production and marketing.

This line of activity will be carried out under the responsibility of the Advisor of Cooperatives.

2. Relationship to country's economic development

The project includes six development areas in the most rural and agricultural section of six different provinces.

The six areas comprise a total population of 103,548 inhabitants, which is 8.20 per cent of national population and 14.50 per cent of the rural population. They include 15,365 farms or farm units, which is 16 per cent of total number of total number of farms in the Republic. In terms of hectareage or total land surface, the project includes 590,790 hectares, which is 7.62 percent of national area. Farm land in the six areas amounts to 100,192 hectares.

Even more significant in the percentage of farmed land within the six project areas: 55 per cent of total land surface. This compares favorably with 24 per cent for the republic as a whole, indicating the rural land agricultural characteristics of the areas selected, and a more intensive land use in the project area.

Attached is a map showing the locations of the six areas covered by the project.

FUNDS

The total cost of the project is estimated at B/8,495,000, of which B/4,930,000 is the cost of operation, maintenance and general expenses to be supplied by the applicant annually over a period of five years through regular budgetary support.

Financing request as AID Loan amounts to B/3,565,000 to be invested in capital improvements, such as institutional buildings, machinery, field and laboratory equipment, vehicles, and irrigation systems, over a period of three years.

The project does not involve large construction works because essentially it is an effort in technical assistance. Construction elements of the program consist of service types of buildings, staff housing and such construction involved in the installation of irrigation systems.

The applicant is a governmental agency, therefore it pays no direct taxes or import duties. No problems contemplated affecting project construction and operation costs in this connection.

Local currency - the balboa - is stable and on par basis (1:1) to the U. S. dollar.

Present Statust of the Project

Statistical and economical analysis of the six areas has been made, including population, number of families and farm units, value and kind of agricultural production, farm input cost, and net yield to farmers, at present, and after completion of the project.

Information related to topography, soils hydrography, climate, road systems and markets has been investigated and compiled for each of the six areas. It also includes land distribution and tenure situation.

The basic organization to conduct the project exist within the Ministry of Agriculture, but the project itself has not been implemented as yet pending upon financing.

Construction and Funding Schedules.

Planned construction schedules, for capital improvements and other items, will take place during a period of time not to exceed three years.

A table of capital improvements, for each of the three years is attached. As it can be appreciated, for the third year only will have to invest in irrigation. (See Tables No. 3 and No. 4).

Procurement and delivery schedules for equipment will follow the physical construction phase of the project.

All commodities will be of Panamá or United States origin.

Engineering Services

Engineering services for final design, preparation of specifications, preparation of contract documents, evaluating bids and supervising construction will be provided by an through the Engineering Advisor of the Ministry of Agriculture, in consultation with the respective technical departments of the Ministry of Agriculture and subject to approval by U.S. AID/Panama. Feasibility studies for irrigation works will be contracted for. Specifications and supervision will be provided by the Engineering Advisor of the Ministry of Agriculture. Actual construction work will be contracted for. Consultants may be called upon, particularly in the field of drainage and irrigation.

Procurement of Non-Local Items

Procurement of major items of materials, supplies and equipment, will be made according to current United States restrictions on source, and as result of public bidding.

The necessary administrative and accounting services would be established in accordance with a sound financial plan worked out by the Applicant and USAID/Panama officials.

Construction

Engineering services for final design, preparation of specifications, preparation of contract documents, evaluating bids and supervising construction will be provided by and through the Engineering Advisor of the Ministry of Agriculture, in consultation with the respective technical departments of the Ministry, and subject to approval by U. S. AID/Panama.

Actual construction work will be done by contractors.

Materials and equipment will be supplied by loan financing. Operation, maintenance and general expenses will be supplied by applicant.

Bids will be awarded to construction contractors in accordance with Government of Panama and USAID/Panama normal contracting procedures and performance bonds will be required for all contractors. Technical, skilled and unskilled construction labor is available as well as competent local subcontractors.

Normal regulations will be applied to import duties on personal property of contractor's personnel, personal income taxes, security requirements, visas, etc. No particular problems are contemplated on this matter.

Normal regulations will apply also to contractors' payments, local taxes on contractors' operations and earnings, and transfer of dollar earnings to U. S.

Operation and Maintenance

The operation, maintenance and general expenses will be supplied by the applicant. This cost is estimated at B/900,000 per year.

Competent personnel will be recruited. At present, the Ministry is carrying on an active training program at college level outside of Panama which will continue, at least, for the next five years. This is expected to increase to 25 for next year.

Not less than three times this number are paying for their own college education or supported by other means.

In addition, the University of Panama will have at the end of this school year its seventh graduation in Agricultural Sciences. Graduating classes in the near future will add an average of ten units per year to the professional manpower.

Vocational agricultural graduates of highschool level, number not less than 50 per year. This figure does not include graduates from similar schools outside of Panama.

Funds for operation and maintenance of the project will come from regular annual budget of the Ministry of Agriculture.

Soundness of Project

The project is considered to be economically and technically feasible and sound.

The population active in the agricultural sector has the lowest rate of economic growth. However, it is the sector of the economy that shows the greatest absolute increase of the labor force. That is, the agricultural sector absorbs the largest percentage of the increase of the labor force.

This high percentage of the total labor force in agriculture minimizes the importance of the contribution of the agricultural sector to the gross internal product. Thus, although the gross internal product reached B/614.8 million in 1965, to which agriculture contributed B/126.3 millions, or 22.9 per cent, the gross internal product per person economically active in agriculture amounted to B/674.00 in 1964 which is the lowest of all sectors, and only one half of the gross product per person engaged in the service sector, which is next to the agricultural sector in low productivity.

The gross product per hectare is equally low. It is estimated at B/49.00 per hectare per year for the country as a whole. Therefore, even small increase in productivity of the agricultural sector, per capita and per hectare, such as is the objective of this project, will mean a substantial contribution to the gross internal product, particularly to the gross product in agriculture.

For the six areas involved in the project it is expected that at the end of five years the production will have increased from a present gross value of B/ 12 millions to B/21 millions, while the net yield to farmers will increase from a present value of B/2.5 millions to B/5.5 millions, for a net gain of B/3.0 millions.

On the other hand, taking the project areas as a whole, the anticipated capital cost per hectare benefitted is B/2.05 and the overall annual operating cost per hectare B/1.23.

The expected total increase in land values is nearly B/12.3 millions; in general business and industry B/23.7 millions, and in tax receipts B/2.5 millions, while the gains and savings in foreign exchange are estimated at B/2.8 millions as a result of this project.

PANAMANIAN AGRICULTURAL PRODUCTIONI Basic Crops, Quantity Produced

	<u>1960/61</u>	<u>1961/62</u>	<u>1962/63</u>	<u>1963/64</u>	<u>1964/65</u>	<u>1965/66</u>	<u>1966/67</u>
Corn (cwts.)	1,295,500	1,631,000	1,584,800	1,672,200	1,805,600	1,860,100	1,860,000
Rice (cwts.)	2,117,800	2,400,900	2,418,500	2,450,300	2,816,200	3,339,400	3,088,800
Beans (cwts.)	114,700	149,300	158,800	105,700	90,500	152,100	154,100
Sugar Cane (tons)	634,455	660,000	643,600	854,300	1,211,200	1,006,400	968,900
Coffee (cwts.)	89,000	111,000	96,000	98,300	95,000	94,900	110,300
Bananas, Exported (bunches)	6,651,535	7,655,157	6,680,371	7,791,471	9,580,793	10,654,938	13,955,043

II Selected Groups, Value of Annual Production

Livestock and Livestock Products (million dollars)	28.0	31.9	33.0	35.6	32.6	34.2	38.0
Fisheries (million dollars)	5.8	5.3	7.3	5.9	9.7	13.8	22.7
Forestry	.7	.9	1.0	1.2	1.1	1.1	1.2

Source: Government of Panama Census and Statistics

ANNUAL PERCENTAGE CHANGES IN PRODUCT OF AGRICULTURAL SECTOR

PANAMA

1960-1967

Year	Gross Product Agriculture \$1,000	% Change from Previous Year	
1960	95,200	- 3.27	
1961	103,900	9.14	
1962	102,500	- 1.35	
1963	109,000	6.34	
1964	116,000	6.42	
1965	127,400	9.83	
1966	138,000	8.66	
1967	<u>146,300</u>	<u>5.80</u>	
Increase In Value (Total	\$ 51,100	Percent Increase Per year (Ave)	6.2

Source: Government of Panama Census and Statistics

EXPORT VOLUME, SELECTED CROPS

PANAMA 1960-66

Article	1960	1961	1962	1963	1964	1965	1966 ^{1/}	1967
Bananas (1,000 stems)	6,600	7,665	6,680	7,791	9,581	12,281	13,955	
Cocoa <u>1/</u>	1.400	1.194	1.103	893	827	648	435	
Shrimp <u>1/</u>	3.800	4.336	4.648	4.325	5.583	4.766	4,688	
Coffee <u>1/</u>	1.260	312	1.713	458	1.472	744	635	
Sugar <u>1/</u>	<u>2.535</u>	<u>4.740</u>	<u>3.314</u>	<u>10.026</u>	<u>16.999</u>	<u>15.531</u>	<u>11.689</u>	
Total	15,595	18,247	17,458	23,493	34,462	33,970	31,402	
Index	100	114	109	147	215	212	196	

Cocoa, shrimp, coffee, and sugar in 1,000 Kilo (Metric tons)
1966 figures preliminary.

Source: Government of Panama Census and Statistics

FOOD PURCHASES IN THE REPUBLIC OF PANAMA
PANAMA CANAL CO. AND UNITED STATES SOUTHERN COMMAND
 (In Thousands of dollars)

<u>YEARS</u>	<u>U. S. SOUTHERN COMMAND</u>	<u>PANAMA CANAL CO.</u> ^{1/}	<u>TOTAL</u>
1956	\$1,509	N.A.	-
1957	2,136	N.A.	-
1958	1,005	N.A.	-
1959	1,562	N.A.	-
1960	1,529	N.A.	-
1961	1,785	N.A.	-
1962	1,908	N.A.	-
1963	2,062	\$1,509	\$3,571
1964	1,715	1,383	3,098
1965	2,137	1,434	3,571
1966	2,649	1,521	4,170
1967	2,481	1,514	3,995

1/ Includes liquor purchases

Sources: Panama Canal Co.; U. S. Southern Command

UNITED STATES SOUTHERN COMMAND
FOOD PURCHASES IN THE REPUBLIC OF PANAMA
1963 - 1967

ITEM	<u>1963</u>	<u>1964</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>
01 Beef and Meat Products	\$ <u>528,514</u>	\$ <u>104,969</u>	\$ <u>295,074</u>	\$ <u>432,973</u>	\$ <u>556,109</u>
02 Dairy Products & Eggs	<u>798,198</u>	<u>818,994</u>	<u>992,490</u>	<u>1,281,391</u>	<u>1,052,536</u>
Dairy Products	<u>590,821</u>	<u>707,444</u>	<u>831,244</u>	<u>1,195,018</u>	<u>973,529</u>
Eggs	<u>207,377</u>	<u>111,550</u>	<u>161,246</u>	<u>86,373</u>	<u>79,007</u>
03 Fish & Fish Products	<u>43,646</u>	<u>38,199</u>	<u>39,052</u>	<u>34,585</u>	<u>38,664</u>
04 Grains & Cereal	<u>163,541</u>	<u>186,405</u>	<u>214,361</u>	<u>207,157</u>	<u>224,840</u>
Rice	<u>7,502</u>	<u>8,583</u>	<u>5,331</u>	<u>8,413</u>	<u>9,043</u>
Bakery Products	<u>156,039</u>	<u>177,822</u>	<u>209,030</u>	<u>198,744</u>	<u>215,797</u>
06 Sugar	<u>9,644</u>	<u>5,106</u>	<u>8,276</u>	<u>8,526</u>	<u>41,757</u>
07 Coffee	<u>26,291</u>	<u>7,426</u>	<u>9,438</u>	<u>9,314</u>	<u>12,035</u>
ALL OTHER	<u>492,494</u>	<u>553,706</u>	<u>578,614</u>	<u>675,527</u>	<u>554,629</u>
TOTAL	<u>\$2,062,328</u>	<u>\$1,714,805</u>	<u>\$2,137,305</u>	<u>\$2,649,473</u>	<u>\$2,480,570</u>

Source: U. S. Southern Command

PANAMA CANAL COMPANY
 FOOD & LIQUOR PURCHASES IN THE REPUBLIC OF PANAMA
 1963 - 1967

	<u>1963</u>	<u>1964</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>
Milk, Animal Products, eggs Fish & Poultry	\$ 494,711	\$ 307,917	\$ 437,568	\$ 549,995	N.A.
Grain, Crude Vegetables, Fruits and Sugar	127,864	90,569	137,028	138,079	N.A.
Food & beverage basic materials	80,881	4,776	4,516	38,176	N.A.
Meat, Dairy Products, manu- factured food, drink and liquors	800,351	974,142	851,606	793,773	N.A.
Manufactured feed for animals	4,873	5,241	3,538	1,525	N.A.
TOTAL	<u><u>\$1,508,680</u></u>	<u><u>\$1,382,645</u></u>	<u><u>\$1,434,256</u></u>	<u><u>\$1,521,548</u></u>	<u><u>\$1,514,336</u></u>

Source: Panama Canal Co.

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The following are answers to questions posed by Congressman Reuss:

1. STRUCTURE OF THE AGRICULTURAL SECTOR

A. Number of persons engaged in agriculture and as a percent of total population.

The total population of Panama is 1,200,000 with approximately 498,000 or 49 percent of the economically active population engaged in agriculture. The agricultural sector provides two and one-half times as much employment as services, the next largest sector.

B. Principal Crops

The principal crops in Panama are bananas, rice, corn, sugar cane, pasture and forage, citrus fruits, vegetables, beans, tobacco and coconuts.

1. Bananas

Bananas rank first both in terms of production and value, and represent the major agricultural export commodity of Panama. In 1965, exports of bananas amounted to \$39.5 million or 50.1 percent of Panama's total exports.

2. Rice

Rice is the most important food crop grown in Panama for

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domestic consumption. National consumption is now estimated to be in excess of 2,500,000 cwt per year, with per capita consumption estimated at 150 pounds per year. Production, which has increased approximately 40 percent since 1962, has only recently (1965) met Panama's domestic consumption needs.

3. Corn

The production of corn ranks third in importance with about 50 percent of the total production being utilized for human consumption and about 50 percent for animal feed. In the past, corn has been grown mainly for home consumption by the producers, and only recently has it been considered as a commercial crop. Whereas, in 1964, imports of corn for domestic needs were 183,000 cwt, in 1965, imports had been reduced by over two-thirds to only 50,000 cwt.

4. Sugar

Sugar is grown in Panama for domestic consumption and for export. In 1965 exports of sugar totalled \$2.1 million or 2.7 percent of total exports. The production of sugar represents a major source of cash income for small farmers who sell their sugar cane on a contract basis to the two sugar refineries in Panama.

5. Pasture and forage crops

Panama is placing increasing emphasis on improvement in and expansion of the production of pasture and forage crops to support its growing beef and dairy industries. In the last ten years, greater improvements have been made in the cultivation practices with respect to pasture and forage lands than in any other phase of agriculture. Panama is not as yet self-sufficient with regard to dairy products, but is approaching self-sufficiency in beef production.

6. Citrus Fruits

The principal citrus fruits produced in Panama in the order of importance are: Oranges, grapefruits, tangerines, lemons and limes. Production of these fruits is sufficient to meet domestic consumption needs. However, production is seasonal and therefore, there are periodic market gluts and shortages. Further, the fruit is of low quality and not suitable for export. In the last three years, 25,000 acres of orange groves have been planted by a private firm and a facility for the processing of the fruit produced is presently under construction. It is expected that this plant will produce both for domestic consumption and export.

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7. Vegetables

The principal vegetables grown in Panama are tomatoes, potatoes, onions, lettuce, and cabbage. The combination of a variety of factors, including limited production, and the lack of transportation, processing, storage and marketing facilities, result in a shortage of vegetables to meet the dietary needs of Panama's population. It has been necessary to import onions and potatoes to meet periodic shortages. However, the cultivation of leafy vegetables and potatoes is being increased in the mountain areas of Panama. Tomato production is also being increased but the tomatoes are being primarily converted into such items as catsup and soups, and fresh tomatoes are still in short supply.

8. Beans

Beans are a very important food component of the Panamanian diet. At present the production of beans is insufficient to meet domestic demands and imports are necessary. According to the latest official data, imports of beans were valued at \$563,000 in 1963. Based on recent production figures, it is estimated that imports of beans have increased in the past three years.

9. Tobacco

Tobacco production is increasing in Panama and is becoming more important as a cash crop. New varieties have been introduced replacing the inferior varieties which have been grown in Panama for many years. The private sector is providing technology and credit to farmers in order to promote the production of a better grade tobacco. At present raw tobacco is being imported primarily for blending purposes.

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c. Dollar Value of Food Export and Imports and Percent of Food Imports to Total Consumption

	<u>Total Consumption (in \$000)</u>	<u>Exports (in \$000)</u>	<u>Imports (in \$000)</u>	<u>Percent of Imports to Total Consumption</u>
1960	365,116	25,602	16,822	4.6
1961	399,237	27,999	18,955	4.7
1962	414,479	31,676	18,165	4.4
1963	442,397	34,730	19,976	4.5
1964	461,526	44,197	22,709	4.9
1965	518,326	52,438	21,649	4.2

d. Farm Organization ^{a/}

<u>Farm Size (Acres)</u>	<u>Number of Farms</u>	<u>Percent of Total Farms</u>
Less than 1 $\frac{1}{4}$	16,743	17.53
1 $\frac{1}{4}$ - 12 $\frac{1}{2}$	35,707	37.39
12 $\frac{1}{2}$ - 125	38,181	39.99
125 - 12,500	4,802	5.02
12,500 - up	<u>72</u>	<u>.07</u>
	95,505	100%

^{a/} Based on 1960 Census.

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II. TO WHAT EXTENT HAVE THE AGRICULTURE GOALS FOR THE ALLIANCE FOR PROGRESS BEEN MET?

Panama has been successfully meeting the agricultural production goals for the Alliance for Progress. During the period 1960 - 1965, the average annual agricultural growth rate was 5.8 percent as compared with the annual rate of population increase which averaged 3 percent per year.

Although the overall average increase in agricultural production has been generally satisfactory, much of this increase is attributable to the increase in banana production primarily for export. Prior to 1965, programs designed to increase agricultural production have not been effective enough to make Panama self-sufficient in food production. However, primarily because of new inputs in agriculture, including increased credit provided in 1964 which favorably affected 1965 production, and also expanded and improved agricultural extension services, agricultural production in 1965 increased by 8.8 percent as compared with 1964.

The major increases in 1965 were: bananas (33 percent), rice (18.6 percent), tomatoes (11 percent), and beef (4.3 percent). Production of sugar cane and corn were generally unchanged from their 1964 levels but the severe 1965 dry season adversely affected the production of milk which was down by 8.3 percent.

In summary, Panama is now rapidly approaching self-sufficiency in rice and other basic foods and it is expected that in view of the GOP's increased emphasis on agriculture that the Alliance for Progress goals, with respect to agricultural production, will continue to be successfully met.

The agricultural goal for Agrarian Reform under the Alliance for Progress is discussed under Item 8, Land Reform.

III. WHAT PRIORITY DOES THE GOVERNMENT GIVE TO AGRICULTURAL DEVELOPMENT?

The present administration of the GOP has assigned top priority to rural development, including agricultural production. For the past two years Panama has shown greater awareness of the need to increase agriculture production not only to feed its rapidly growing population and to increase the income of its rural inhabitants, but also as a source of industrial raw materials and foreign exchange earnings.

This growing awareness is largely attributable to the emphasis President Robles has placed on rural development in the now famous "Plan Robles". Under the Plan, programs are being undertaken in six priority areas, comprising 18.2 percent of the total rural population, to improve and expand agricultural facilities and institutions: Emphasis has been placed on providing agricultural

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credit, expanding and upgrading extension services, improving agricultural research and providing land titles to individual farmers. The GOP is also presently undertaking or developing programs for providing the infrastructure necessary for increased agricultural production, including roads, irrigation, hydro-electric power, marketing facilities, etc. In addition, it is actively engaged in programs designed to improve the health and education of its rural population.

IV. WHAT AMOUNT AND PERCENT OF THE NATIONAL BUDGET IS DEDICATED TO SUCH DEVELOPMENT?

In 1966, Panama budgeted \$3,265,333 for the agricultural functions of the Ministry of Agriculture, Commerce and Industry. This represented 3.3 percent of the total national budget. For CY 1967, the GOP has just approved \$5,336,660 for the total functions of the Ministry of Agriculture, Commerce and Industry. Exact figures for the agricultural functions has not as yet been released, but it is estimated that approximately \$4.0 million or 75 percent of the budget is for agriculture only. If the \$4.0 million figure is correct, it will represent an increase of 22.6 percent over 1965.

As previously noted, this does not represent the total input for agricultural development since construction of roads, irrigation projects, hydro-electric power, directly related to agricultural development are included in the budgets of other Ministries and autonomous agencies. Similarly, it does not include the social inputs for education and health which are basic factors in agricultural development.

V. DOES THE GOVERNMENT HAVE A COMPREHENSIVE SECTORAL PLAN FOR AGRICULTURAL DEVELOPMENT?

Panama does not have a comprehensive or sound national plan for the agricultural sector. The National Economic Development Plan for 1963 - 1970 prepared by the National Department of Planning (NDP) contains some data on the agricultural sector, but these data are sketchy and agriculture program decisions have been made on an ad hoc basis in the absence of a well defined agricultural policy. As noted above, Panama is committed to the concept of priority development of six geographic areas under "Plan Robles", but this cannot be considered a comprehensive sectoral plan.

AID is now providing technical assistance to NDP through a private consultant firm. It is planned that this group will assist NDP during the coming

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year in the development of comprehensive National Economic Development Plan for 1968 - 1972. The USAID is prepared to finance the addition of a highly qualified agricultural economist to augment the present five-man consultant group to ensure adequate coverage of the agricultural sector. It is expected that the National Plan will be completed by the close of CY 1967.

The USAID also recognizes the need to strengthen the capabilities of the Economic and Planning Sections of the Ministry of Agriculture. Although some efforts have been made in this direction over the past years, little has been accomplished since there has been, in the past, little appreciation on the part of the GOP of the importance of planning. At present, however, there is a growing awareness of the need for developing sound policies and programs on the part of the GOP, and the USAID believes that the Ministry of Agriculture would now welcome technical assistance directed toward strengthening its Economic Planning Section.

VI. WHAT COORDINATION EXISTS AMONG THE INTERNATIONAL AGENCIES WITH REGARD TO AGRICULTURAL DEVELOPMENT?

The major sources of external assistance to Panama have been from agencies and institutions having either total or substantial U. S. financial support. The leaders are: Inter-American Development Bank, World Bank, AID, and the United Nations.

Coordination among the major assistance donors is considered good and no serious policy or programming differences have been noted among the international agencies involved. This is largely attributable to the frequent opportunities to exchange information and views among various agency representatives on both the local and Washington level.

The areas of concentration for each of the major agencies are fairly well defined. For example, IDB has provided loans assistance for the expansion of agricultural credit, whereas AID has provided loan funds for a rural cadastral survey, livestock development, expansion of extension services with lesser emphasis on agricultural credit. IBRD has concentrated on loans for feeder roads and rural electrification. The areas of interest of the U. N. are less clearly defined. Recently the U. N. Special Operations Fund approved grant financing to cover feasibility studies for irrigation and hydro-electric power, a pasture and forage crop research project, and a forestry study. In addition, the United Nations, through FAO, is providing the services of a substantial number of agricultural technicians (approximately 15) to the Ministry of Agriculture.

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VII. WHAT DOLLAR AMOUNTS AND PERCENT OF AID COMMITMENTS HAVE GONE INTO AGRICULTURAL DEVELOPMENT SINCE THE INCEPTION OF THE ALLIANCE FOR PROGRESS?

The following table show the amount and percent of AID obligations for agricultural development in relation to total AID commitments in Panama for the period July 1, 1961 to November 30, 1966.

	Total (In millions of dollars)	Grants	Loans
All AID obligations	61.7	19.2	42.5
AID obligations for Agriculture	12.0 ^{a/}	3.5	8.5
Percent of AID commitments for Agricultural development of total commitments	19.4 ^{a/}		

^{a/} These funds do not include AID loans and/or grants for social and industrial development activities directly related to agriculture such as rural education and health and agro-industries.

VIII. WHAT ACTION HAS BEEN TAKEN SINCE THE INCEPTION OF THE ALLIANCE WITH REGARD TO:

A. The Expansion of Arable Lands

Panama has a total land area of 7,565,000 hectares (18,693,000 acres), of which approximately 25 percent is used for farming and pastures and another 20 percent is suited only for forestry. A major portion of the remaining land area probably has only marginal or sub-marginal suitability for farming or livestock production. Panama does not suffer from a shortage of farm lands in terms of population even though a very small percentage of the land can be classified as choice farm lands.

The increase in agriculture production in the decade from 1950 to 1960 resulted more from increased land area brought into production than from any significant progress in production methods. According to census data, 1,806,452 hectares were under cultivation in 1960 as compared

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with 1,159,082 hectares in 1950 or an increase of 55.8 percent. While additional land has been brought under cultivation in the early sixties, there has recently been strong evidence of increased production achieved through more efficient and intensive cultivation practices.

B. Putting Existing Arable Lands Into Cultivation

Panama has followed the established pattern of bringing land into cultivation by changing virgin forest land to pastures and by converting pastures into crop production farms. There has been a sharp increase in the amount of arable land brought into production during the past two years. The rich lands of the Chiriquí Province and the plains of the Coclé Province are the two areas where increased use of arable lands have been most noticeable. In almost all cases, these lands have been shifted out of pasture into the production of corn and rice. The increased use of arable lands is probably the major factor in Panama's attainment of self-sufficiency in rice and its near self-sufficiency in corn during the past two years.

C. Increasing Yields from Land Under Cultivation

Panama has not as yet achieved noticeable increases in yields from land under cultivation. Yields per hectare continue to be low. In the past, emphasis has not been placed on increasing unit production because new lands were available and it was not deemed necessary to concentrate upon improving yields. However, both the public and private components of the agricultural sector now recognize that increased yields on lands already under cultivation are mandatory to meet expanding consumer demands and the need to increase exports.

Panama is now placing great emphasis on the use of physical inputs to increase yields on lands under cultivation. The use of modern farm machinery is rapidly expanding under Alliance for Progress programs. In rural areas, where a few years ago mechanization was completely unknown, there now exists an impressive number of tractors, plows, mechanical harvesters and the like. For example, a visit to the Penonomé area in 1962 revealed no evidence of the use of farm tractors. In 1966, during an agricultural fair in this same area, 79 privately owned tractors were exhibited in the parade.

The use of fertilizers and insecticides is also increasing. Panama does not have fertilizer or agricultural chemical plants and depends solely on imports for these products. At this time, these products can probably be imported as cheaply as they can be produced in Panama.

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Panamanian distributors are now carrying out an active campaign to promote the increased use of fertilizers and insecticides and are developing programs for alleviating bottlenecks in financing and distribution which have heretofore impeded the use of these products.

Up to the present, Panama has been importing all of its improved seeds. However, a pure seed processing and storage facility under construction by the Ministry of Agriculture is nearing completion and this facility will make available a substantial amount of improved seed for rice and corn for the coming year. This facility is part of the overall seed program being carried out by the Ministry. The program includes identification of improved varieties, multiplication of selected seeds, and processing, storage and distribution of improved seeds to farmers.

D. Crop Diversification and Land Reform

1. Crop Diversification - As already noted, Panama has long been producing diversified crops (see I.B. above) and is not at present aggressively pushing crop diversification. On the other hand, there is every indication that the GOP is concerned over the present necessity for importing certain crops which can be produced in Panama and is considering programs to stimulate their production. These crops include; soy beans, peanuts, fibres (kenaf and ramie), pineapples, coconuts, and beans. It is expected that within the next two or three years, the GOP crop programs now under consideration will be actively implemented.

2. Land Reform - Panama has passed an Agrarian Reform Law and is implementing an agrarian reform program. The law provides adequate basic legislation for land reform and the GOP has been willing to change this legislation when it appeared necessary for implementation purposes.

The first major problem that the Agrarian Reform Agency faced was that of identifying rural property and establishing ownership. When the agrarian reform program was initiated in 1963, there were 95,505 farms in Panama of which 59,505 were occupied by farmers who held no title to the land. Since that time the Agrarian Reform Agency has received requests for titles for 22,700 (37.8 percent) of these farms. The titling process has been slow but the Agrarian Reform Agency processed about 1,900 farm title plans in 1966, of which some 950 will result in legal titles in 1966. The number is relatively small but it is twice the number of titles issued in 1965.

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The titling process is moving slowly because: (1) the necessary information and the capability to translate this information into legal land titles is still being developed, (2) the GOP feels that a charge should be made for the land distributed, not as a device to produce revenue but to establish permanency and commit the farmer to the parcel of land he receives, (3) credit is available to cover land survey and purchase costs, and (4) once a farmer has submitted a request for titling, prior right is at least partially established and consequently he does not feel the necessity for following through on his formal request for titling.

E. Agricultural Credit

There are three major sources of agricultural credit in Panama. These are: The Banco Nacional, the Instituto de Fomento Económico (IFE) and private financing institutions. All of these agencies have rural or field offices located throughout Panama.

Panama is stressing agricultural credit to small farmers at a reasonable rate of interest (8 percent) and as shown by the following table, loans to farmers are being made by both public and private financing institutions.

Agricultural Loans (In thousand dollars)

<u>Year</u>	<u>National Bank</u>	<u>IFE</u>	<u>Private Banks</u>	<u>Total</u>
1960	1,700	564	3,704	6,027
1961	1,359	780	5,873	8,013
1962	3,285	1,023	5,582	9,889
1963	3,082	1,115	6,459	10,657
1964	3,340	2,849	9,664	15,857
1965	4,488	2,510	8,596	15,594

At present there is very little technical assistance involved in the granting of loans to farmers. It is essential that Panama concentrate on the establishment of supervised agricultural credit in order to ensure effective use of loan funds by those farmers who lack technical and farm management know-how.

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IX. DESCRIBE AGRICULTURAL RESEARCH, EDUCATION AND EXTENSION SERVICES

Research - There is a Research Section within the Ministry of Agriculture and eight experiment stations have been established throughout Panama. The top personnel are considered well qualified. However, the section as a whole is understaffed. The need to maintain eight separate stations is questionable since soils and climatic conditions in the major agricultural areas are similar. On the other hand, the applied research activities carried on by the stations on Panama's basic food crops is commendable and complementary to the extension service activities.

Education - The School of Agriculture, opened in 1959, at the National University of Panama offers university level studies in general agriculture and the National Agricultural School at Divisa offers a lower level three-year course. The graduates of both institutions receive adequate training by Latin American standards, but are too few in number to meet the need for qualified personnel in both the GOP agencies and the private sector. Fortunately, Panama has been able to obtain the services of Panamanians who have utilized their own resources as well as various scholarship programs to secure formal agricultural training in the United States and other Latin American countries, notably Mexico and Brazil. Additionally, the AID program has sponsored supplemental training in the U. S. for a substantial number of local agricultural technicians in specific subject matter areas. However, shortages of trained technicians still persist.

Extension - Panama now has a moderately effective extension service consisting of 36 local extension branch offices and six regional offices staffed with a total of approximately 200 extension and subject matter specialist. There is also a very small administrative staff located in the Ministry. The top echelon of this service is considered adequately trained and qualified, but similar qualifications are lacking in the middle-level field personnel.

The aggressive policies of the present Minister of Agriculture have resulted in significant improvements over the last two years in field operations and in improved coordination between the Extension Service and IFE, the production credit and price support agency, which is benefiting both entities.

A. Students pursuing agricultural studies

As noted above students are pursuing agricultural studies at the National University and on the secondary vocational school level at

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Divisa. The following table shows that the number of students pursuing agricultural studies on the university level has doubled between 1961 and 1965 and that the number attending the vocational school has increased by almost 50 percent. However, the percent of agricultural students to total enrolment is exceedingly small in both types of institutions and has remained virtually static.

Agricultural Students in Panama

1961 - 1965

<u>SECONDARY VOCATIONAL SCHOOLS</u>				<u>UNIVERSITY</u>		
Years	Total Enrolment	Agricultural Enrolment	% of Agricultural Enrolment to Total Enrolment	Total Enrolment	Agricultural Enrolment	% of Agricultural Enrolment to Total Enrolment
1965 ^{a/}	5,497	117	2.1	6,760	143	2.1
1964	4,508	88	1.9	5,994	100	1.7
1963	4,284	84	2.0	5,433	106	1.9
1962	N.A.	85	N.A.	5,056	82	1.6
1961	N.A.	80	N.A.	4,227	70	1.6

^{a/} Preliminary figures

B. Number and Quality of Extension Agents

The field operations of the Extension Service require personnel with varied levels of training. There are approximately 80 positions which require university level training for maximum effectiveness and about 50 technicians or 63 percent of the staff presently occupying these positions are so qualified. The rest of these positions are filled with the best available people who have only a secondary level education. There are also approximately 120 positions which call for secondary level agricultural vocational training and approximately 40 or a third of these positions are filled by persons who have had such training.

In summary, a majority of the professional staff is well trained and is providing good leadership; the middle-level personnel are weak.

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C. Projected Needs for Agricultural Extension Agents.

In view of the fact that at present there are a sufficient number of agricultural extension agents to cover the present agricultural areas, it is estimated that over the next ten years (1967 - 1976) only 15 additional agents with university level education and 20 with secondary vocational education will be needed.

However, it will also be necessary to upgrade as soon as possible the 30 extension agents currently in positions requiring university education by providing in-service training or opportunities for formal education. Further, it is essential to upgrade the 80 technicians who require further training on the secondary level.

It is also important to note that turnover in the ten year period will require the training of replacements for 150 professional level personnel and replacements for approximately 300 secondary level personnel. These projections are based on an average annual turnover rate of approximately 19 percent for professional level personnel and 25 percent for secondary level personnel.

D. To What Extent Will these Projected Goals be Met?

USAID/P estimates that the percentage of adequately trained staff occupying professional level positions will increase from the present figure of 63 percent of the number required to 80 percent over the projected period (1967 - 1976). This assumes the continued normal expansion of enrolment and facilities at the School of Agriculture of the National University and a continuation of the present trend toward overseas training.

The USAID/P also estimates that during the projected period there will be an increase from 30 to 70 percent of adequately trained personnel occupying secondary level positions. The substantial expansion of the facilities of the National Agriculture School at Divisa, which was accomplished in 1964 and 1965 with AID assistance, will permit the anticipated increase in enrolment within the next decade. In-service and short-term training courses should also contribute to upgrading of personnel. It is believed that if a sense of professionalism and pride in their work is developed through adequate training opportunities, and if a career service is instituted, the present high rate of turnover noted above will be substantially reduced.

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X. HAS ANALYSIS BEEN MADE OF THE AGRICULTURAL MARKETING STRUCTURE OF THE COUNTRY?

Recognizing the need for a sound analysis of the marketing structure of Panama, since only limited data were available, the GOP initiated a marketing feasibility study in August, 1966 utilizing AID loan funds. This study which is scheduled for completion by January 15, 1967 will include, but not be limited to, an analysis of the requirements for the development of: (a) a central wholesale market complex in the major consumer areas, (b) facilities for the storage, processing and marketing of cereals and selected vegetable crops, (c) an export market for Panama beef, (d) a processing industry for citrus, pineapples and selected tropical fruits, (e) an edible oil industry with special emphasis on oils derived from permanent type oil bearing crops, (f) marketing assembly facilities in areas of production, and (g) a more comprehensive GOP agricultural pricing policy and practices.

A. The Spread Between Farm Prices and Consumer Prices on Principal Farm Products is Indicated in the Following Chart

As shown by the following table the differences between prices paid to the farm and consumer prices range from 34 percent to 176 percent depending on the product. The largest difference, 100 percent and over, are for rice, milk, yuca, yams, tomatoes and coconuts. Difference of from 50 to 99 percent include coffee, potatoes, and cheese. The smallest differences 34 percent and 46 percent were found for eggs and chicken, respectively.

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SPREAD BETWEEN FARM AND CONSUMER PRICESOF PRINCIPAL AGRICULTURAL PRODUCTSPANAMA 1965

<u>Product</u>	<u>Unit</u>	<u>Farm Prices</u> <u>(In Dollars)</u>	<u>Consumer</u> <u>Prices</u> <u>(In Dollars)</u>	<u>Difference</u>	
				<u>\$</u>	<u>%</u>
Rice in rough					
First Class	cwt	6.10	15.00	8.90	146
Second Class	cwt	5.28	12.80	7.52	142
Yams	cwt	4.47	10.40	5.93	133
Yuca	cwt	1.81	5.00	3.19	176
Potatoes	cwt	6.50	10.00	3.50	54
Coffee	cwt	35.79	70.00	34.21	96
Coconuts	hundred	4.24	11.00	6.76	159
Tomatoes	lbs.	0.12	0.24	0.12	100
Chicken	lbs.	0.41	0.60	0.19	46
Milk	bot.	0.12	0.29	0.17	142
White Cheese	lbs.	0.30	0.55	0.25	82
Eggs	doz.	0.50	0.67	0.17	34

Source: Planning Department of the Presidency of the Republic.

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B. Farm Profits

At present there are no data available on farm profits. However, it is expected that the release of the marketing feasibility study will stimulate research in this area.

C. Marketing Risks

Panama now has some policies that reduce marketing risks such as, protective tariffs, import licensing, and price maintenance. The most critical market risk in Panama is the lack of adequate facilities to store surplus production with the result that there is inadequate protection against losses from spoilage. The lack of all weather roads to convey agricultural products to markets also constitutes a major risk.

Some market information is being made available but this service needs to be expanded and improved. Some of the food processors in the private sector are utilizing a form of commodity contract, especially in the fresh vegetable area, the principal crops being tomatoes and sugar cane. This mechanism has contributed effectively toward ensuring ample and timely production thereby reducing the marketing risks for the respective producers.

D. Cost of Inputs

No reliable or complete data have been compiled on the cost of agricultural inputs. However, as already noted (see Section V), the National Department of Planning in its preparation of the National Economic Development Plan for 1968-1972 will doubtless cover this area in its analysis of the agricultural sector.

E. Storage Facilities and Spoilage

Storage facilities for agricultural products are inadequate and losses attributable to improper and inadequate storage are high as shown for selected commodities in the chart below. It is estimated that the total annual loss ranges from a minimum of \$.9 million to \$2.7 million.

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ANNUAL ESTIMATED STORAGE LOSSES

UNDER PRESENT CONJITIONS - 1966 ^{a/}

Product	Percentage Storage Loss	Hundredweight	Dollar Value
Potatoes	10 - 15	12,000 to 20,000	70,000 to 120,000
Rice	3 - 5	90,000 to 150,000	500,000 to 900,000
Corn	2 - 20	40,000 to 400,000	140,000 to 1,400,000
Beans	2 - 3	3,000 to 5,000	25,000 to 40,000
Tomatoes	15 - 18	9,000 to 10,000	90,000 to 100,000
Onions	10 - 20	2,000 to 4,000	12,000 to 20,000
Lettuce	25 - 30	5,000 to 6,000	50,000 to 60,000
Cabbage	25 - 30	5,000 to 7,000	20,000 to 30,000
TOTAL			907,000 to 2,670,000

a/ Preliminary Data - Agricultural Marketing Feasibility Study.

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F. The Government's Marketing Policies (Including Taxes, Subsidies, Price and Production Controls)

While there is no comprehensive GOP marketing policy on agricultural products, it is quite evident from the policies and practices of concerned agencies that the GOP is endeavoring, within its fiscal and technical capabilities, to become self-sufficient in the production of basic agricultural commodities, and to make these commodities available to the consumer at fair prices which also provide an equitable return to the producer. Under the present purchasing program of the Instituto de Fomento Económico (IFE) guaranteed support prices have been established for rice, corn, and beans. The Office of Price Regulation (ORP), working closely with IFE, also establishes maximum producer and consumer prices on basic agricultural products and there is no indication at this time that these levels have had any adverse effect upon agricultural production, except possibly with respect to beans. It should be noted that price support plus increased technical assistance and production credit, have led to a 40 percent increase in rice production over the last four years and changed Panama from a rice importing country to self-sufficiency in rice production. In late 1966 the ORP reduced the price of rice to the consumer by approximately 15 percent. Comparable efforts, aimed at meeting internal demand, are now being focused on corn and beans.

In general, small farmers who comprise the vast majority of agricultural producers are not paying taxes. No direct subsidies for agricultural products or inputs exist excepting the assistance provided by the minimum price support structure described above, duty-free entry for seeds, fertilizer and certain other agricultural supplies and equipment, and some limited tariff protection to favor local production.

Production controls per se are absent, but again production of certain commodities can be and are heavily influenced by the production credit and price support policies of IFE and the pricing regulation policies of ORP.

G. Distribution and Processing

1. Roads

Despite the presence of potentially productive resources awaiting development which could support a larger population and a higher standard of living, Panama's agricultural development has been impeded by the lack of adequate transportation facilities. Official government sources estimate that the country's road network consists of some 4,500 miles of which almost two-thirds consists of dirt roads, most of which are

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usable only during the dry season. Of the remaining roads, an estimated 800 miles are paved and about 750 miles are gravel.

There is a great need for constructing additional roads, particularly in the Interior, and for improving existing roads in order to open new areas for production and to transport agricultural products to market. The GOP is fully aware of the needs in this area and is seeking additional external assistance for highway construction and improvement.

2. Rural Electrification

The Instituto de Recursos Hidraulicos y Electrificación (IRHE) is the government agency charged with developing rural electrification.^{a/} IRHE has an installed generating capacity of 7,503 Kw which produced 16,840 Kwh in 1965 to service 10,883 residential customers; 1,275 commercial clients, 16 industrial plants, along with an unspecified number of municipal and national government users. IRHE's growth rate, in terms of number of consumers and power consumption, has exceeded 12 percent annually. This growth rate will accelerate starting in early 1967, as a result of the additional 6,000 Kw capacity of the La Yeguada project financed by an IBRD loan.

It should be noted, however, that IRHE is presently serving primarily small towns in rural areas and that electrification insofar as small and medium size farms are concerned, is virtually non-existent. However, the Government of Panama is seeking to expand its rural electrification program, particularly in the six priority areas, and is seeking financing from external sources.

At present the IBRD is considering a loan request from the GOP to finance the Bayano River Project. If the loan is approved, the project will increase the electric power supply for the metropolitan area surrounding the Canal Zone. It is hoped that the new installations will also be able to provide power for the rural areas adjacent to the metropolitan area. If this is possible, a rural electrification cooperative will be organized which will be responsible for handling the distribution of electric power to farmers in the area.

^{a/} In addition to IRHE, electric power is made available in Panama through four private companies and the Panama Canal Company. These institutions, together with IRHE have a total installed generating capacity of 211,848 Kw and now serve 100,573 consumers.

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3. Cooperatives

A study of producer and consumer cooperatives and credit unions in Panama was completed in January, 1966.^{a/} The study did not include housing cooperatives in the rural areas since at that time only two such cooperatives in small towns had been formally registered but were not operating. (See item 4 below for subsequent developments in rural cooperative housing)

The following data are based on the 1966 study.

a. Agricultural Production Cooperatives - As of January, 1966, there were 15 agricultural cooperatives composed of about 1,500 members and formed among producers of coffee, potatoes, rice, vegetables, bananas, cattle raisers, dairy-men and fishermen. Many of these cooperatives were of fairly recent origin and were not providing effective services for their members. A few of these cooperatives were in serious financial difficulty and some did not appear to have the caliber of management necessary for growth and success. Nevertheless, the conclusions reached by the study team was that "there appears to be, however, tremendous potential in the use of cooperatives to stimulate agricultural production, processing, and development and to rationalize marketing procedures". Since the publication of the report, steps have been taken which are designed to improve and expand the development of agriculture cooperatives.

The Cooperative Section of the Ministry of Agriculture now has 20 cooperative technicians. While these technicians are for the most part inadequately trained, they do have a genuine interest in their work. Further, recognizing the need for technical assistance to develop the cooperative movement and to upgrade the Panamanian technician now working in cooperative development, the Cooperative League of the United States of America (CLUSA) with AID support, is providing the service of a full time technician to the Cooperative Section of the Ministry of Agriculture. In addition, the USAID has recently added two U.S. technicians to its staff (one under contract) who will assist in the development of agricultural cooperatives and credit unions.

^{a/} The study entitled Preliminary Study of the Feasibility of a Cooperative Bank in Panama was made jointly by representatives from the Cooperative League of America (CLUSA) and the Organization of the Cooperatives of America (OCA).

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b. Consumer Cooperatives - In January, 1966, there were about 30 consumer cooperatives in Panama with a total membership of over 3,000. Twenty-three of these consumer cooperatives are small consumer stores located on banana plantations and formed among the workers in the banana fields. According to the report cited above, some of these stores are uneconomically small, and do not, in the absence of merger, or other arrangements, offer much potential for growth, although they are filling an economic need. Other consumer cooperatives visited appear to have excellent growth potential and are providing a useful service to their members.

c. Credit Unions - The credit union movement in Panama for the most part is young and is growing rapidly. At the end of 1965, credit unions in Panama numbered around 70 with more than 8,500 members. Their total savings, including capital shares, was \$820,000. Thirty-one of the strongest credit unions have formed a Federation of Credit Unions which has applied to AID for a seed capital loan of \$500,000 for relending to its member credit unions.

It should be noted that while a large number of the credit unions have been formed in urban areas, a significant number of these credit unions have members in rural areas. Also, a few credit unions are formed entirely by members from rural areas. The study, referred to above, points out that it is apparent from the number of credit unions whose members are in the rural population that the potential of the use of credit unions for production credit should be developed. Such credit unions could finance the purchase of feed, seed, fertilizer, farm machinery and tools and other commodities necessary for increased agricultural production.

The Credit Union National Association (CUNA) with the support of AID, is presently providing technical assistance to the Federation of Credit Unions as to individual credit unions. In 1967, it is planned that increase emphasis will be given to the expansion of credit unions in the rural areas.

d. Housing Cooperatives - A pilot rural self-help housing cooperative is now in operation in Los Positos, Chiriqui. The first group of 10 farm homes has been completed and a second group of six farm homes is under construction. The Cooperative is successfully managing its own funds and payments by members on their completed homes are ahead of schedule.

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AID is now actively considering a request for a loan of \$3.5 million for housing cooperatives in urban and rural areas. The plans include the development of some 40 cooperatives in rural and semi-rural communities and the construction of a total 1,000 homes (25 homes per cooperative). The average price for the homes will be \$500 and the maximum price will be \$1,000. Assistance is being provided to the housing cooperative movement in Panama by three full-time technicians under AID arrangements with the Foundation for Cooperative Housing (FCH).

4. Processing

In the area of processing, the private sector in Panama has to a small degree initiated agro-industry activities primarily directed towards import substitutions. However, these activities, because of their limited size and scope have not as yet had a significant effect on food production or demand. Programs are now under consideration by the GOP which would include:

- (a) exploring potential agro-industrial opportunities;
- (b) providing basic information and technology to prospective entrepreneurs;
- (c) assisting in developing necessary infrastructure such as, industrial parks, power, transportation and communication facilities, etc.
- (d) offering tax incentives to new industries, and
- (e) assisting in an export promotion program.

H. The Relationship Between Food Needs, Effective Demand and Supply

As far as can be ascertained, no comprehensive analysis has been made of the relationship between food needs, effective demand and supply. It is expected, however, that the analysis of the agricultural sector to be included in the National Economic Development Plan for 1968 - 1972 will cover these factors.

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XI. DESCRIBE THE NUTRITIONAL VALUE OF THE DIET, ITS COMPOSITION AND DISTRIBUTION AMONG THE PEOPLE, COMMENT ON THE ADEQUACY OF THE DIET

The average Panamanian's diet consists mainly of yuca, yams, rice, fruit and some meat. Carbohydrates, dominate both by reason of habit and availability. For example, meat and milk are available but are quite expensive and therefore low income families find it difficult to include these foods in their budgets. While fish is available in the coastal areas, it is difficult to obtain in the interior because of the lack of adequate refrigeration, transportation, marketing and storage facilities.

In June 1966, a Conference of the Americas on Malnutrition was held in Panama City. The report of the Panamanian delegation to this conference contains significant data on the adequacy of the Panamanian diet. It cites the findings of a national survey made in 1954 which indicated a per capita daily availability of 2,240 calories and 47 grams of proteins, 15 of which were of animal source. This caloric consumption was slightly over the 2,000 calories considered as minimum by many nutritionists. Partial investigations, made since the 1954 study, confirm the fact that there still is a marginal consumption of calories and proteins, a low intake of calcium, Vitamin A and riboflavine.

✓ The report notes that the problem of malnutrition is more serious in those cases where poverty, ignorance, and unhealthy environment simultaneously exists, affecting particularly the pre-school age group children. In Panama, as in other Latin American countries, malnutrition diseases rarely appear as causes of death. From an analysis of the primary cause of death (gastritis, duodenitis, enteritis and colitis) among groups of less than one year of age as well as among children of from one to four years of age, the report concludes that "It is not too risky to determine that malnutrition exists in our country to an extent that it can be considered as a Public Health problem, affecting pre-school age children more".

The most striking indication of nutritional deficit was found in the weight deficit observed in a great percentage of pre-school and school age children. In a recent study made in an area in the central provinces, weight deficiencies were found to fluctuate between 27 percent among the group of less than 6 months of age, to 70 percent among children of 4 to 6 years of age, with an average of 54 percent. From 50 to 65 percent of school age children had weight deficiencies. Projecting these findings to the total of the population below 15 years of age (43 percent of the population in Panama) it is estimated that probably 22.3 percent of the population under 15 is suffering from varying degrees of malnutrition.

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Based on partial investigations, complemented by other data obtained through evaluations of a subjective type, the report states that "...malnutrition is the cause in a great number of our children for a considerable retardation in their statural -weight and bone growth; a low resistance to infections and poor scholastic achievements. In adults, these deficiencies, accumulated through the years, are manifested in a prematurely aged human type, of feeble constitution and in whom the full development of his potentials has been greatly reduced, physically or mentally".

The Ministry of Health is carrying out nutritional educational activities directed towards protecting mothers' and children's health in its more than 110 integrated local health programs in different parts of the country. Programs are also being carried out by CARE and CARITAS utilizing food contributed under the U. S. Food for Peace program. An applied Nutrition Coordinated Program developed three years ago by the Ministries of Agriculture, Education and Public Health in collaboration with FAO, OMS, and UNICEF, is also in operation. However, because of the complexity of the problem, it is clear that much remains to be done if malnutrition in Panama is to be successfully combatted.

It should be noted that more up-to-date, comprehensive and authoritative data on nutrition in Panama will be available in the near future. A collaborative nutritional survey of Panama, with participation by the Government of Panama, the Nutritional Institute of Central America and Panama (INCAP) and the Nutrition Section, Office of International Research, U. S. National Institutes of Health, is scheduled for the period January 17 - March 22, 1967. The nutritional status of a statistical sample of the population will be determined by means of appropriate clinical, dietary, biochemical, parasitological and immunological examinations. The social, economic and environmental factors which may affect the nutritional health of the population will also be studied, and food production and agricultural development reviewed at the national level. A formal report to be published at the end of this study will contain valuable information on nutrition in Panama which should serve as a basis for a frontal attack on the problem of malnutrition.

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XII. SOCIAL DEVELOPMENT PROGRAMS IN RURAL AREAS

The major social programs being undertaken in the rural areas are in education, health and community development. Other programs in the rural areas which have social impact such as cooperatives, credit unions and the like have been discussed above.

1. Education

Panama has made significant progress in developing educational opportunities for the rural population. According to data prepared by the Panamanian Department of Census and Statistics, 203,429 children were enrolled in 1,580 public and private elementary schools in 1965 for the country as a whole. Of these, 124,023 children or 61 percent were enrolled in 1,434 or 91 percent of the total number of primary schools. The number of children enrolled in primary schools in rural areas has increased markedly in the past decade. The 1965 enrollment was 26 percent higher than in 1960 and 50 percent higher than in 1955.

While data on total enrollment in public and private secondary schools are available for Panama as a whole (54,906 in 1965), no breakdown is available by rural and urban areas. However, in 1965 there were 13 public secondary schools in rural areas and 26 such schools in urban centers. In addition, there were 150 private secondary schools in the country as a whole, but no breakdown is presently available as to the number of such schools in rural and urban areas.

Panamanian law requires that all children between 7 - 15 years of age attend school. In 1965, 83 percent of the children of this age group in the country as a whole were attending school. Although no data has been compiled on the proportion of rural school age children attending school in relation to the rural school age population, it is safe to assume that the percent of school attendance is lower in rural areas than in urban centers. The principal causes for the lower rate of school attendance among children in rural areas is the lack of schools in isolated areas and the inability of many pupils attending the 613 one-teacher schools in the country to have access to larger schools where upper primary grade education is offered.

The caliber of education in rural schools is also lower than in the urban centers because of such factors as: (a) the large number of children of varied ages and educational levels attending one-room-one-teacher schools; (b) the greater lack of textbooks, teaching aids and supplies; and (c) the lesser degree of teacher supervision which adversely affects the quality of teaching.

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As noted above, there is still a wide gap between rural and urban education and a considerable investment in rural education is necessary to minimize this gap. Recognizing this fact, the GOP is giving top priority to the expansion and improvement of rural education. One of the key and immediate educational objectives of the rural school program is to provide an adequate number of schools and teachers to enable rural children to complete at least the sixth grade. It is significant that more funds are now being spent for the construction of rural schools than for urban schools.

AID is contributing substantially to the GOP's efforts to upgrade rural education. Under an AID grant made in 1962, 16 modern elementary schools and five modern secondary schools as well as 79 self-help elementary schools were constructed outside the metropolitan areas of Panama City and Colon. It should be noted that the 79 self-help schools were constructed with community contributions of labor and local materials. This successful self-help program is being extended to 166 additional rural communities involving an annual enrollment of 20,500 students, under a \$1.7 million AID loan made in October, 1965 which is being matched by a GOP contribution of \$907,479 and local community contributions of approximately \$271,000.

2. Relation between rural primary education and technical assistance

The rural population, has on the average, less than a third grade education. This low level of formal education does generally limit the ability of the rural population to absorb and utilize technical assistance. However, there are positive signs that, in spite of this low level of education, many farmers are taking advantage of the technical assistance offered through the Panamanian Agricultural Extension Service and are increasing their agriculture production. (See item II, page 5). Similarly persons in rural areas are benefitting from the technical assistance provided in such fields as health, sanitation, home economics, and community development. This is because the technical assistance provided by technicians is being geared, in general, to the existing educational level of the rural population. Demonstration methods, visual aids, and personal supervision are being used extensively by technicians rather than printed educational materials which are beyond the grasp of the recipients of technical assistance.

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As already noted, major programs are underway to raise the level of education of the population in rural areas to at least the sixth grade. Literacy and adult education classes, as well as short-term agriculture and home economics courses are becoming increasingly popular in the rural areas. It is believed that these efforts auger well for increasing the capacity of the rural population to absorb and utilize technical assistance.

3. Health

The health sector is the only major sector for which there is a long range development plan. The National Health Plan of the Republic of Panama, 1962-1970, which was prepared by the Ministry of Health with the assistance of PAHO and AID, calls for an orderly development of health facilities and services within a regional framework.

Under the Plan, the country has been divided into three regions. Briefly summarized, each of the three regions of the country is to have a base hospital serving as a referral center for a surrounding network of health centers which will provide limited maternity and pediatric inpatient facilities. These centers will in turn serve as supervisory and referral centers for progressively smaller health units reaching down into the smallest populated communities. The Plan also sets forth a detailed timetable for the development of the facilities necessary to make the system fully operational, including the training of personnel for the facilities. Except for lags in implementation in some phases of the program, the expansion of health facilities and services is continuing each year according to the Plan, with changes being made as required.

AID has and is assisting the GOP in carrying out its health plan. Under an AID grant made in 1962, 11 health centers were constructed and 7 mobile health units were provided for health services to rural communities. AID is now considering a loan for the construction of a regional hospital in Aguadulce for the central provinces. Besides serving as referral center for a network of small health centers and units, this hospital will be used to train public health nurses, health educators and technicians serving an area of 400,000 residents.

Water systems have been built in small towns of a thousand persons or more in the rural areas of Panama utilizing an IDB loan of \$2.8 million made in 1962 under the Social Progress Trust Fund. In a proposed AID loan project now under consideration, potable water systems will be brought to smaller towns in the interior thereby serving approximately 30,000 rural residents. AID also

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has under consideration, loan requests for an accelerated malaria eradication program in rural areas and for twelve additional mobile health units to bring health and medical services to isolated rural communities.

The GOP is vitally concerned with improving the health of its rural population not only because of humanitarian reasons but also because it is aware of the importance of health in increasing food production. In 1966, almost 10 percent of the total GOP budget was allocated for health services. There is every reason to believe that the Health Plan will continue to be implemented over the next five years at a rate consonant with the availability of domestic and external resources.

4. Community Development in Rural Areas

There are a number of public and private agencies concerned with community development in Panama. The Department of Community Development in the Ministry of Health, Social Welfare and Labor, comprised of about 37 technicians, is responsible for the promotion and implementation of community development programs in Panama. At the present time, technicians are assigned primarily to four of the nine provincial capitals. However, their activities are limited chiefly because of the lack of vehicles to permit visits to outlying communities and operating funds for tools, equipment, and materials with which to assist the rural communities in carrying out self-help projects.

AID's grant and loan assistance in the development of self-help community programs in rural areas, such as the self-help school construction program, the mobile health unit program, cooperatives and the like, which are undertaken jointly with the GOP but with the GOP having primary responsibility, have been discussed earlier in this report. In addition, USAID/P has been active in direct community development activities since 1964 when it signed its first project agreement with the GOP for the establishment of a Special Activities Fund designed to bring the Alliance for Progress directly to the Panamanian people.

Up to the present, \$275,000 has been provided by AID to assist rural communities in carrying out self-help activities. USAID has assigned a project coordinator who works full time in this area and

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who is assisted on a part time basis by an engineer and a rural development technician. Of the \$275,000 provided thus far for the program, \$207,000 has been committed for some 145 self-help community projects, of which approximately 95 percent have been in rural areas.

The projects which have been undertaken include assistance to communities in such activities as: construction of schools, health and community centers, bridges, and sanitation projects; books for rural libraries; and also assistance to housing, fishing and agriculture cooperatives through the establishment of small revolving funds to be used primarily for production credit. All of these projects involve community initiative, organization, and self-help.

In projects, where only the communities and the USAID are involved, the communities usually provide about two-thirds of the cost of the project (labor and materials), and the USAID about one-third of the cost. In the past year, however, various Ministries of the GOP, particularly the Ministries of Agriculture and Education have become increasingly interested in participating in this program. In those projects in which GOP agencies are participating, the division of cost is approximately one-third by the community, one-third by the concerned Ministry (technical supervision, transportation and some materials), and one-third by the USAID.

Other groups, both within the Panamanian Government and the private sector, are engaged in community action programs. The private sector working in close cooperation with the Ministry of Agriculture has underwritten about 20 training programs in community development techniques for approximately 150 rural leaders. These leaders, who live and work in small communities, promote the organization of community action committees which take the lead in stimulating their communities to undertake self-help projects for which there is a "felt need".

The Catholic Church is supporting an organization for the promotion of education and social assistance. This organization has a staff of seven community development agents who are presently assisting some 35 rural communities in developing community action programs. In addition, the organization is supporting an institute for the training of rural community development leaders who have been selected for training by the organization's field staff.

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The American Institute of Free Labor Development (AIFLD) has also undertaken the training of a limited number of community development workers, mainly in the Province of Chiriquí, and has financed a number of small projects in rural areas.

The U. S. Peace Corps has some 150 volunteers working in Panama, and of these over half are working primarily in community development programs in rural areas. A Panamanian Volunteer Service, analogous to the U. S. Peace Corps, was developed on a pilot basis in 1965 with the support of the GOP and the private sector. It is expected that the GOP will establish this organization on a permanent basis in 1967. It is also planned that AID will provide financial assistance to the GOP in support of the volunteers and for self-help community action programs in which they will be involved.

All of the organizations noted above have been given financial assistance and/or excess property for use in their programs by AID and a high degree of coordination and cooperation between the USAID and these organizations has been maintained.

In summary, it may be stated that the Alliance for Progress concept of self-help through community action has already spread widely throughout many of the rural areas of Panama. It is expected that this concept will spread even more rapidly and widely in the foreseeable future.

ADAIR

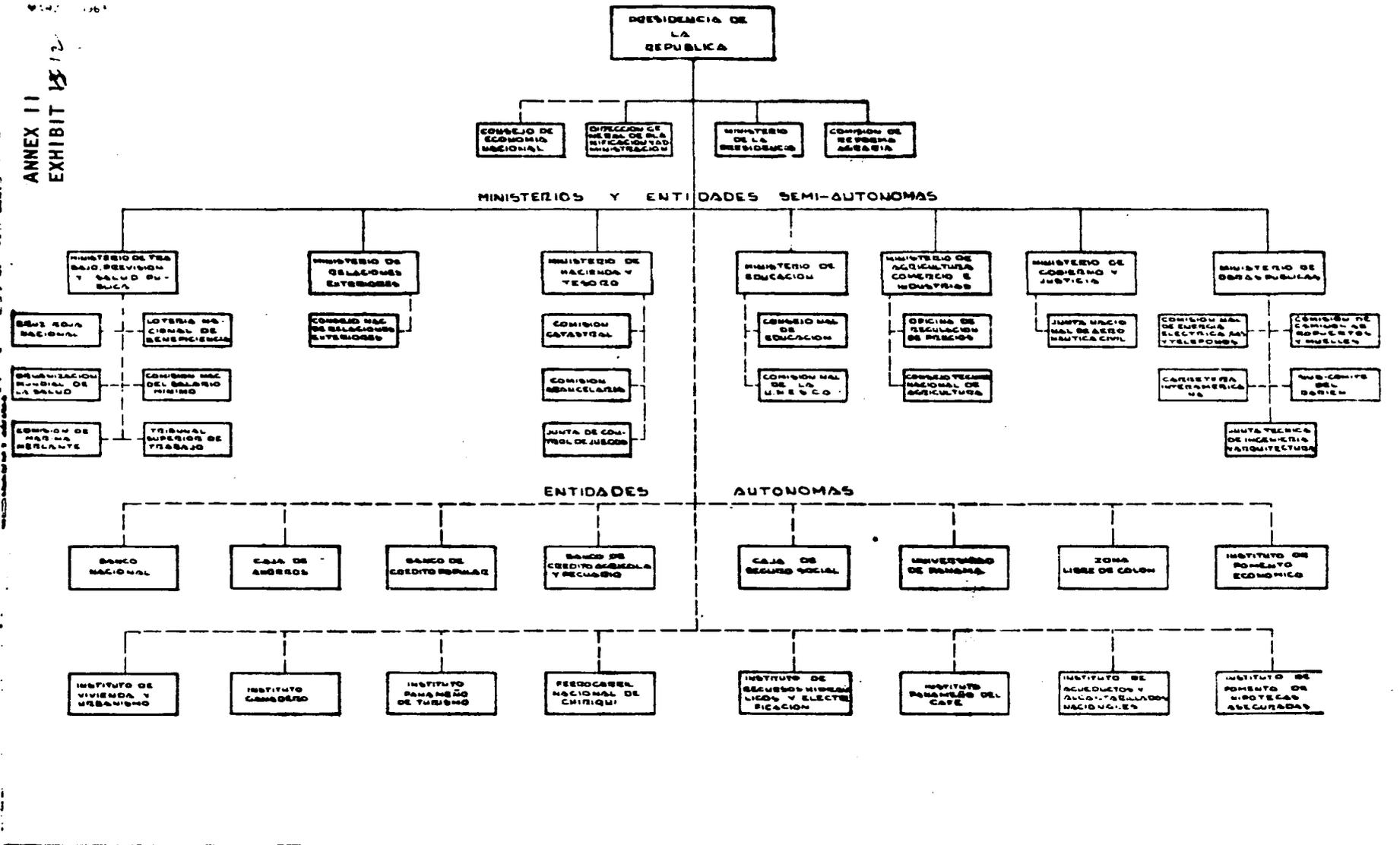
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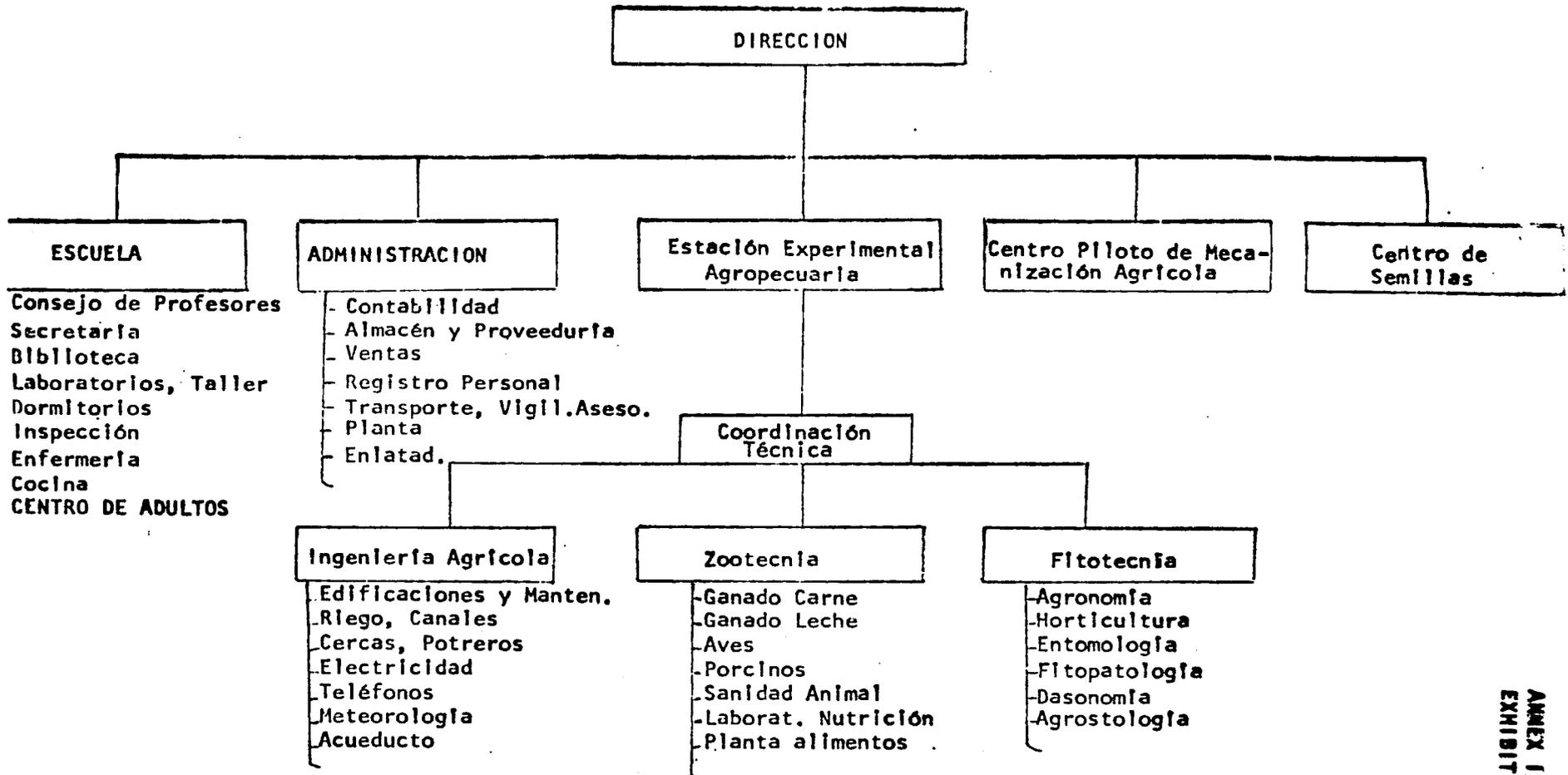
1961

ANEX II
EXHIBIT 12



ORGANIGRAMA DEL INSTITUTO NACIONAL DE AGRICULTURA

DIVISA, PANAMA



PANAMA
GROSS NATIONAL PRODUCT
1960-1966

(IN MILLIONS OF DOLLARS - CURRENT MARKET PRICES)

<u>YEAR</u>	<u>GNP</u>	<u>PERCENT CHANGE</u>
1960	407.6	-
1961	449.7	+ 10.3
1962	492.4	+ 9.5
1963	543.5	+ 10.4
1964	571.6	+ 5.2
1965	630.4	+ 10.3
1966	697.8	+ 10.7

Source: Dirección de Estadística y Censo

PANAMA
Employment and Unemployment
(In Thousands)

<u>Year</u>	<u>Economically ^{1/} Active</u>	<u>Employed</u>	<u>Unemployed</u>	<u>Under-Employed</u>	<u>Percent Unemployed</u>	<u>Percent Under-Employed</u>
1960	346	313	33	N.A.	9.5	---
1963	374	354	20	34	5.3	9.1
1964	377	352	25	34	6.6	9.0
1965	393	364	29	28	7.4	7.1
1966	404	384	20	34	4.9	8.4

^{1/} Defined as a person 10 years of age or more seeking employment.

N.A. - Not available.

Source: Dirección de Estadística y Censo, 1967.

PANAMA

Employment and Unemployment

Metropolitan Area ^{1/}
(In Thousands)

<u>Year</u>	<u>Economically</u> ^{2/} <u>Active</u>	<u>Employed</u>	<u>Unemployed</u>	<u>Under-</u> <u>Employed</u>	<u>Percent</u> <u>Unemployed</u>	<u>Percent</u> <u>Under-Employed</u>
1960	158	135	23	N.A.	14.5	--
1963	170	153	17	25	10.0	14.7
1964	174	155	19	25	10.9	14.4
1965	185	162	23	21	12.4	11.3
1966	193	177	16	25	8.3	12.9

^{1/} The Metropolitan Area is comprised of the districts of Arraijan, Capira, La Chorrera, Panama and part of Cheop, in the Province of Panama; and Colon, Chagres, Portobelo and Santa Isabel in the Province of Colon.

^{2/} Defined as a person 10 years of age or more seeking employment.

N.A. - Not available.

Source: Dirección de Estadística y Censo, 1967.

PANAMA
GROSS INVESTMENT & DOMESTIC SAVINGS—
1960 - 1966 ^{a/}
(MILLIONS OF DOLLARS)

	<u>1960</u>	<u>1961</u>	<u>1962</u>	<u>1963</u>	<u>1964</u>	<u>1965</u>	<u>1966</u>
Private Sector							
Total	56.4	67.1	72.2	80.7	74.6	91.0	135.1
(of which fixed)	(49.4)	(58.7)	(61.3)	(69.6)	(62.3)	(78.0)	(121.6)
Public Sector							
Total	11.4	21.3	25.1	27.8	26.2	23.1	20.1
(of which fixed)	(12.0)	(21.7)	(24.2)	(27.0)	(25.5)	(22.1)	(20.5)
Grand Total	67.8	88.4	97.3	108.5	100.8	114.1	155.2
(of which fixed)	(61.4)	(80.4)	(85.5)	(96.6)	(87.8)	(100.1)	(142.1)
Gross Investment							
As % of GNP							
(PANAMA)	16.6	19.7	19.8	20.0	17.6	18.1	22.2
Gross Investment							
As % of GNP							
(18 Latin American							
Republics)	18.5	19.0	18.1	17.1	18.1	17.6	17.8
Savings (Domestic)							
As % of GNP							
(PANAMA)	8.5	13.9	15.4	15.1	14.2	14.0	17.4

^{a/} Includes Gross fixed Investment plus change in Inventories

Sources: GOP National Income Accounts (Census & Statistics) and Latin American Economic Growth Trends (AID), October, 1967

PANAMA
DOMESTIC REVENUES AND ORDINARY EXPENDITURES OF THE CENTRAL GOVERNMENT
1960 - 1967
(IN MILLIONS OF DOLLARS)

	<u>1960</u>	<u>1961</u>	<u>1962</u>	<u>1963</u>	<u>1964</u>	<u>1965</u>	<u>1966</u>	<u>1967</u> ^{a/}
ORDINARY REVENUES, TOTAL	<u>58.0</u>	<u>62.9</u>	<u>67.6</u>	<u>69.1</u>	<u>75.6</u>	<u>86.5</u>	<u>100.3</u>	<u>112.7</u>
Tax Revenues, Total:	<u>44.3</u>	<u>47.6</u>	<u>54.1</u>	<u>55.0</u>	<u>60.1</u>	<u>69.7</u>	<u>81.4</u>	<u>90.7</u>
Imports	19.4	20.7	21.5	18.2	17.3	19.6	21.3	24.0
Income & Profit	10.8	10.7	14.9	15.6	18.5	22.2	29.7	32.5
Property	2.7	3.3	3.5	3.7	3.9	4.3	4.4	4.5
Consumption	5.7	6.1	6.8	8.9	11.4	12.6	13.7	14.6
Other	5.7	6.8	7.4	8.6	9.0	11.0	12.3	15.1
Non-Tax Revenues, Total	<u>13.7</u>	<u>15.3</u>	<u>13.5</u>	<u>14.1</u>	<u>15.5</u>	<u>16.8</u>	<u>18.9</u>	<u>22.0</u>
Public Enterprises	5.2	6.5	6.9	7.8	8.7	10.0	11.2	13.3
Other	8.5	8.8	6.6	6.3	6.8	6.8	7.7	8.7
ORDINARY EXPENDITURES ^{b/}	<u>63.7</u>	<u>66.5</u>	<u>67.3</u>	<u>77.2</u>	<u>80.8</u>	<u>86.2</u>	<u>98.4</u>	<u>113.6</u>
Personnel	34.9	36.0	36.0	40.2	42.6	45.2	58.8	62.3
Operation	28.3	29.3	27.6	32.3	33.7	36.4	37.4	43.8
Capital Outlay	0.5	1.2	3.7	4.7	4.5	4.6	2.2	7.5

^{a/} USAID/P Estimates based on Preliminary Data

^{b/} Excludes payments on Accrued Floating Debt

Source: Dirección de Estadística y Censo

PANAMA
BALANCE OF PAYMENTS
1960 - 1967
(IN MILLION OF DOLLARS - CURRENT MARKET PRICES)

	<u>1960</u>	<u>1961</u>	<u>1962</u>	<u>1963</u>	<u>1964</u>	<u>1965</u>	<u>1966</u> ^{a/}	<u>1967</u> ^{b/}
I <u>CURRENT TRANSACTIONS</u>	- 33.7	- 27.6	- 22.7	- 25.0	- 15.0	- 22.0	- 26.4	- 30.4
A. <u>GOODS & SERVICES</u>	- 34.4	- 31.6	- 22.6	- 25.2	- 15.2	- 25.9	- 28.3	- 32.9
1. Exports	123.3	140.2	175.6	195.7	210.3	228.7	253.5	268.7
2. Imports	157.7	171.8	198.2	220.9	225.5	254.6	281.8	301.6
B. <u>TRANSFER PAYMENTS (Net)</u>	2.7	4.0	- 0.1	0.2	0.2	3.9	1.9	2.5
II <u>CAPITAL ACCOUNT</u>	29.4	38.8	34.6	30.5	33.0	22.7	31.5	34.7
A. <u>PRIVATE SECTOR (Net)</u>	14.6	32.2	29.8	11.2	6.1	10.1	12.9	19.1
1. Long-term (Net)	15.6	32.6	25.6	13.1	2.9	13.2	15.4	21.6
2. Short-term (Net)	- 1.0	- 0.4	4.2	- 1.9	3.2	- 3.1	- 2.5	- 2.5
B. <u>PUBLIC SECTOR</u>	8.3	- 2.5	4.1	24.3	3.7	7.2	10.9	14.5
1. Loan Disbursements	7.8	3.2	8.0	22.6	8.4	10.6	14.5	17.0
2. Loan Repayments	- 0.7	- 0.8	- 2.7	- 1.2	- 2.2	- 3.0	- 3.1	- 1.9
3. Other	1.2	- 4.9	- 1.2	3.4	- 2.5	- 0.4	- 0.5	- 0.6
C. <u>CHANGE IN MONETARY RESERVES</u>	6.5	9.1	0.7	- 5.5	23.2	5.4	7.7	1.1
III <u>NET ERRORS & OMISSIONS</u>	4.3	- 11.2	- 11.9	- 5.5	- 18.0	- 0.7	- 5.1	- 4.3

^{a/} Revised Estimates

^{b/} USAID/Panama Estimates

Source: Dirección de Estadística y Censo; USAID/Panama

PANAMA

EXPORTS OF GOODS AND SERVICES

1960 - 1967

(In Million of Dollars - Current Market Prices)

	<u>1960</u>	<u>1961</u>	<u>1962</u>	<u>1963</u>	<u>1964</u>	<u>1965</u>	<u>1966</u> ^{a/}	<u>1967</u> ^{b/}
<u>COMMODITIES</u>	<u>39.35</u>	<u>41.35</u>	<u>59.81</u>	<u>72.55</u>	<u>82.00</u>	<u>92.61</u>	<u>104.10</u>	<u>106.58</u>
1. Bananas	18.16	20.13	20.13	25.07	29.13	39.61	44.50	48.29
2. Refined Petroleum	-	-	13.85	23.61	24.94	23.07	25.91	21.84
3. Shrimp	4.99	5.85	7.94	6.17	7.40	7.78	9.25	9.33
4. Coffee	1.11	0.26	1.41	0.39	1.45	0.70	0.60	0.60
5. Cocoa	0.77	0.51	0.48	0.45	0.38	0.24	0.20	0.16
6. Sugar	0.40	0.78	0.53	1.56	2.49	2.12	1.56	2.00
7. Re-exports	1.38	1.88	1.92	0.79	0.94	1.20	0.64	.78
8. Other	12.54	11.94	13.55	14.51	15.27	17.89	21.44	23.58
<u>SERVICES</u>	<u>83.97</u>	<u>98.82</u>	<u>115.76</u>	<u>123.12</u>	<u>128.30</u>	<u>136.07</u>	<u>149.40</u>	<u>162.08</u>
1. Freight & Insurance	0.01	0.01	0.03	0.06	0.05	0.07	0.08	0.09
2. Other Transportation	6.42	6.93	8.24	9.51	12.21	14.62	15.90	17.80
3. Travel	25.09	29.86	34.98	35.01	32.61	38.31	42.34	46.64
4. Investment Income	2.25	2.50	2.50	2.50	5.27	2.50	2.50	2.50
5. Government	2.38	3.01	3.49	5.66	6.84	7.98	9.15	10.12
6. Other Services	47.82	56.51	16.52	70.38	71.32	72.59	79.43	84.93
TOTAL EXPORTS	123.32	140.17	175.57	195.67	210.30	228.68	253.50	268.66

^{a/} Revised Estimates

^{b/} USAID/Panama Estimates

Source: Dirección de Estadística y Censo

PANAMA

IMPORTS OF GOODS AND SERVICES

1960 - 1967
(In Million of Dollars - Current Market Prices)

	<u>1960</u>	<u>1961</u>	<u>1962</u>	<u>1963</u>	<u>1964</u>	<u>1965</u>	<u>1966 a/</u>	<u>1967 b/</u>
<u>COMMODITIES</u>	<u>109.09</u>	<u>123.83</u>	<u>144.34</u>	<u>163.35</u>	<u>167.76</u>	<u>191.77</u>	<u>217.42</u>	<u>233.59</u>
1. Food Products	13.26	15.08	14.65	15.93	18.35	17.08	18.58	18.22
2. Beverages & Tobaccos	2.82	2.80	3.82	1.49	1.39	1.78	1.94	2.00
3. Raw Materials	1.05	1.47	1.79	2.17	2.67	2.13	2.09	2.15
4. Fuels & Mineral Lubricants (of which: Crude Petroleum)	10.81 -	11.04 -	27.09 (17.12)	37.76 (33.03)	35.47 (33.72)	40.35 (38.46)	47.59 (46.08)	48.00 (46.12)
5. Fats & Oil	0.23	0.43	0.45	0.43	0.55	0.60	1.11	1.09
6. Chemical Products	11.37	13.25	13.80	15.22	16.80	18.15	19.42	23.12
7. Manufactures	44.65	49.34	51.70	58.37	57.94	69.60	73.86	78.07
8. Machinery & Equipment	24.14	30.27	31.83	31.27	32.12	39.88	49.72	57.75
9. Miscellaneous	0.76	0.15	0.79	0.71	2.47	2.20	3.11	3.15
<u>SERVICES</u>	<u>48.61</u>	<u>47.97</u>	<u>53.90</u>	<u>57.52</u>	<u>57.74</u>	<u>62.81</u>	<u>64.36</u>	<u>68.00</u>
1. Freight & Insurance	13.37	14.98	17.87	17.32	16.99	19.59	20.90	21.50
2. Other Transportation	3.75	4.02	5.03	5.81	6.02	5.74	5.43	5.50
3. Travel	7.07	7.44	7.15	7.88	10.31	10.02	11.76	12.50
4. Investment Income	12.69	10.42	9.96	11.14	10.50	17.67	15.91	17.00
5. Government	2.82	4.10	5.07	7.67	5.26	2.67	3.36	3.50
6. Other Services	8.91	7.01	8.82	7.70	8.66	7.12	7.00	8.00
TOTAL IMPORTS	157.70	171.80	198.24	220.87	225.50	254.58	281.78	301.59

a/ Revised Estimates

b/ USAID/Panama Estimates

Source: Dirección de Estadística y Censo

LOCAL COST JUSTIFICATION

U.S. Balance of Payments Aspects

The following analysis sets forth the prospective first-round effects on the U.S. balance of payments of the proposed project's dollar financing of local costs. In dealing with these effects, two aspects are considered: on the one hand, the resultant direct stimulus to U.S. exports and on the other hand, the provision of dollar foreign exchange with which products from third countries may be purchased.

The approach used in attempting to quantify these effects is to determine (1) the domestic income generated by the dollar-financed local cost input (which in Panama may be considered a direct addition to the money supply in the first instance since the basis of the country's currency is the dollar) and (2) Panama's average propensity to import as well as the varying shares allocated to its suppliers. Such quantification is, at best, crude. However, it is felt that this analysis does lead to the construction of a relevant statistical model describing the probable effects of dollar financing of local costs in Panama.

In the case of Panama, aggregate foreign exchange availability is of crucial importance in generating increases in GDP. A foreign exchange multiplier with respect to effects on residentiary income has been approximated at two (Stanford Research Institute). It would on this basis, appear valid in the case of dollar financing of local costs to claim twice the amount to be so financed as a contribution to GDP (defined as residentiary income plus foreign sector value-added). Therefore the local cost-related dollar input of this project, \$1.8 million would generate a contribution to GDP of \$3.6 million.

Panama's average propensity to import 1/ is high (imports - c.i.f. as a percent of current price GDP-31 percent 1964, 32 percent 1965 2/, 33 percent 1966). It may be expected that any changes which might occur in the importance of imports relative to GDP during the disbursement period of the project will be slight. Of the additional income generated by the project, therefore, 33 percent, or \$1.2 million, would be allocated to imports.

1/ Average, rather than marginal propensity to import is used since the income generated is considered contributory rather than additional.

2/ Imports c.i.f. estimated

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Concerning the percentage allocations to various suppliers of Panama's imports, 1966 data show that the U.S. provides 41 percent (fob) of the country's imports directly. Taking into account Canal Zone exports to Panama and estimated exports of U.S. goods entering Panama through the Colon Free Zone, the U.S. share was closer to 45 percent.

On the same basis, the U.S. share has declined slightly over the past few years (46.1 percent in 1964, 44.8 percent in 1965, and 44.6 percent in 1966). During the disbursement period of the project the U.S. share given the above-described trend, will probably decline further though not significantly, assuming that prices of U.S. products will retain their levels relative to those of competitors. On the basis of historical data, therefore, it would appear safe to assume statistically that 44 percent, or some \$523 thousand of imports generated by the dollar-financed local cost input of this project will be supplied by the U.S.

While in 1966, 45 percent of Panama's imports was supplied by the U.S., an additional 27 percent was supplied by other countries within the Western Hemisphere. Venezuela, Mexico, and Canada supplied 23 percent. Thus 72 percent of Panama's imports was supplied by countries within the Western Hemisphere and principally by the U.S. or by countries which are among the primary markets for U.S. products in the Western Hemisphere.

The remaining 28 percent of Panama's imports in 1966 (those not supplied by the U.S. or other countries within the Western Hemisphere) was allocated as follows: Western Europe-17.3 percent, Japan-7.8 percent, and other-3.2 percent. This percentage allocation has remained rather steady over several years. On the same statistical basis then, exports of countries outside the Western Hemisphere in the amount of some \$333 thousand would be generated by the proposed project.

The second and subsequent round effects of exports generated by local cost financing in Panama are beyond the scope of this analysis. However, it would appear quite safe to assume that the second round effects of income generated within the Western Hemisphere (beyond that generated in the U.S.) would have salutary effects on U.S. relative to non-Western Hemisphere exports.

PANAMA
REGISTERED IMPORTS
1964 - 1966
(IN MILLIONS OF DOLLARS)

ANNEX II
EXHIBIT 25-2y
page 1 of 2

	1964		1965		1966	
	Value Fob	Percent of total	Value Fob	Percent of total	Value Fob	Percent of total
<u>UNITED STATES OF AMERICA</u>						
Direct	71.2	43.0	78.0	41.1	87.9	41.0
Through Colon Free Zone ^{1/}	4.1	2.5	5.4	2.9	5.9	2.7
Canal Zone	1.0	0.6	1.5	0.8	1.9	0.9
TOTAL U.S.A.	<u>76.3</u>	<u>46.1</u>	<u>84.9</u>	<u>44.8</u>	<u>95.7</u>	<u>44.6</u>
<u>LATIN AMERICA & CANADA</u>						
Canada	2.1	1.3	2.3	1.2	2.4	1.1
Colon Free Zone ^{1/}	0.9	0.6	1.6	0.8	1.3	0.6
Mexico	2.3	1.4	1.8	1.0	1.6	0.7
Venezuela	31.1	18.8	36.9	19.5	45.6	21.3
Other Latin America	8.5	5.1	7.8	4.1	7.3	3.4
TOTAL L.A. & CANADA	<u>44.9</u>	<u>27.2</u>	<u>50.4</u>	<u>26.6</u>	<u>58.2</u>	<u>27.1</u>
TOTAL NORTH AND SOUTH AMERICA	<u>121.2</u>	<u>73.3</u>	<u>135.3</u>	<u>71.4</u>	<u>153.9</u>	<u>71.7</u>
<u>WESTERN EUROPE</u>						
United Kingdom	5.1	3.1	6.0	3.2	6.8	3.2
West Germany	5.9	3.6	7.1	3.7	6.5	3.0
France	1.4	0.8	1.7	0.9	2.0	0.9
Colon Free Zone ^{1/}	5.1	3.1	6.7	3.5	8.5	4.0
Other Western Europe	10.8	6.5	12.5	6.6	13.3	6.2
TOTAL WESTERN EUROPE	<u>28.3</u>	<u>17.1</u>	<u>34.0</u>	<u>17.9</u>	<u>37.1</u>	<u>17.3</u>

(Continued on following page)

(Continued from previous page)

	1964		1965		1966	
	Value Fob	Percent of total	Value Fob	Percent of total	Value Fob	Percent of total
<u>JAPAN</u>						
Direct	6.3	3.8	9.7	5.1	10.7	5.0
Through Colon Free Zone ^{1/}	3.8	2.3	3.9	2.1	6.0	2.8
TOTAL JAPAN	<u>10.1</u>	<u>6.1</u>	<u>13.6</u>	<u>7.2</u>	<u>16.7</u>	<u>7.8</u>
<u>OTHER ASIA</u>						
Hong Kong	1.7	1.0	2.1	1.1	2.1	1.0
Philippines	0.5	0.3	0.6	0.3	1.1	0.5
Through Colon Free Zone ^{1/}	0.7	0.5	0.8	0.4	1.0	0.5
Other	1.2	0.7	1.2	0.7	0.7	0.3
Total Other Asia	<u>4.1</u>	<u>2.5</u>	<u>4.7</u>	<u>2.5</u>	<u>4.9</u>	<u>2.3</u>
<u>OTHER</u>	<u>1.7</u>	<u>1.0</u>	<u>2.0</u>	<u>1.0</u>	<u>1.9</u>	<u>0.9</u>
Total Registered Imports	<u>165.4</u>	<u>100.0</u>	<u>189.6</u>	<u>100.0</u>	<u>214.5</u>	<u>100.0</u>

^{1/} Based on applying percent share of Colon Free Zone Imports to Panama's Imports from the Free Zone

Sources: Dirección de Estadística y Censo - "Comercio Exterior 1966"
"Panamá En Cifras 1967".

Prepared by: USAID/Panama - Office of Development Planning

LA-CAEC/P-68/58/1
April 9, 1968

MEMORANDUM FOR THE CAPITAL ASSISTANCE EXECUTIVE COMMITTEE

FROM: LA/CD, Jerome Levinson

SUBJECT: PANAMA - Agricultural Development Loan - IRR

The Office of Capital Development has reviewed subject IRR and recommends its approval subject to the following suggestions:

1. Of the four components, it appears that only supervised agricultural credit activities will be exclusively utilized by the small farmers. In view of the fact that the primary goal of the loan will be to increase the production and productivity of the small farmer, should not all of the components of this proposed program be specifically directed towards the small farmer?
2. An analysis of Panama's farm pricing policies was a covenant in Loan 525-L-010. However, the GOP stated that it did not have any funds to make the study and consequently no analysis was made. It is recommended that such a price study be made a condition of the proposed loan with a specific time schedule. If necessary the loan paper should recommend that funds from the loan may be used to finance such a study.
3. The tentative AID disbursement schedule covers a three-year period. The GOP financing indicated for the fourth and fifth years should be excluded and the total GOP contribution should be correspondingly reduced.
4. Describe the precise nature of the GOP contributions. Will these contributions represent net additions to ongoing expenses? Is the GOP owned land included in the estimate of GOP contributions?
5. In view of the large percentage of local currency costs in the loan, the CAEC should decide whether AID should require more than the minimum requirements set forth in the special letter of credit memorandum.
6. The loan paper should include consideration of Title IX opportunities under the program. For example, it may be possible to stimulate the development of cooperatives and village associations through the supervised credit program and through specific inputs in adult education and training.

Minutes of CAEC Meeting - April 18, 1968

(LA-CAEC/M-6840)

1. Panama - Agricultural Development Loan - IRR (LA-CAEC/P-68/58)

The tenor of the meeting indicated general concern with the lack of specificity of the proposed program and its relation to the agricultural situation in Panama.

The CAEC approved the IRR indicating that the loan paper should be specific in defining the objectives of the loan and the ways in which it will affect small farmers.

The loan paper should provide a detailed review and explanation of why the covenant by the GOP in loan 010 to undertake a price study was not met. There was agreement that such a study should be carried out during the first year of the proposed loan.

Technical comments of LA/CD should be conveyed to USAID to be considered during the intensive review.

Attachment:

Memo to CAEC - April 9, 1968

DRAFT LOAN AUTHORIZATION

Provided from: Alliance for Progress Funds

PANAMA: Agricultural Development

Pursuant to the authority vested in the Deputy U.S. Coordinator, Alliance for Progress, by the Foreign Assistance Act of 1961, as amended, and the delegations of authority issued thereunder, I hereby authorize the establishment of a loan pursuant to Part I, Chapter 2, Title VI, Alliance for Progress, to the Republic of Panama (Borrower) of not to exceed

dollars (\$)) to assist in financing the costs of a project for agricultural development in Panama, comprised of the following activities: (a) technological development support, (b) technical education, (c) marketing improvement, (d) supervised agricultural credit, (e) policy and program development, and (f) such other agricultural development activities of the Borrower as may be agreed upon by Borrower and the Agency for International Development ("A.I.D. ").

This loan shall be subject to the following terms and conditions:

1. Interest and Terms of Repayment

Borrower shall repay the loan to A.I.D. in United States Dollars within forty (40) years from the first disbursement under the loan, including a grace period of not to exceed ten (10) years. Borrower shall pay to A.I.D. in United States Dollars on the disbursed balance of the loan interest of one (2%) percent per annum during the grace period and two and one-half (2-1/2%) percent per annum thereafter.

2. Other Terms and Conditions

a. Equipment, materials and services (except marine insurance) financed under the loan shall be procured from the United States of America and Panama. Shipping financed under the loan shall be procured from the United States, and marine insurance financed under the loan shall be procured from the United States, and marine insurance financed under the loan shall be placed in the United States with a company

authorized to do business in any state of the United States.

- b.** United States dollars utilized under the loan to finance the local costs shall be made available through the Special Letters of Credit procedure.
- c.** Borrower will provide evidence satisfactory to A. I. D. that (1) Borrower has competent architectural and engineering service to supervise and certify construction work and to assure compliance with construction plans; (2) that Borrower has detailed typical construction plans, specifications and cost estimates for construction to be performed under this project; and (3) detailed listings, including specifications and cost estimates of all equipment to be procured for any component of this project.
- d.** A. I. D. shall have the right to approve all construction sites for this project.
- e.** Borrower shall provide adequate resources to complete the project, and such resources as are required to carry out the activities contemplated after disbursement of loan proceeds.
- f.** Unless A. I. D. otherwise agrees in writing, Borrower agrees to accept, implement and enforce recommendations made by professional consultants to be provided under this program, and furthermore agrees to review with A. I. D. on a periodic basis the extent of adherence to this covenant.
- g.** Except as A. I. D. may otherwise agree in writing, income to the Borrower generated through the use of loan proceeds shall be utilized solely for the purposes of the project.

h. The loan shall be subject to such other terms and conditions as A.I.D. may deem advisable.

**Deputy United States Coordinator
Alliance for Progress**

Date

MEMORANDUM

June 4, 1968

TO : Mr. Harry Ackerman
Acting Director, USAID/Panama

FROM : Thomas O. Stephens
Rural Development Officer /sm *Stephens*
USAID/Panama

SUBJECT : Certification Pursuant to Section 611 - Foreign
Assistance Act.

REFERENCE: Agricultural Development Loan

1) PURPOSE: In accordance with current USAID Capital Development requirements, my recommendation was requested regarding the maintenance and use of facilities to be constructed under the proposed Agricultural Development Loan, pursuant to Section 611(c) of FAA.

2) PAST EXPERIENCE WITH MINISTRY OF AGRICULTURE, COMMERCE AND INDUSTRIES (MACI): The MACI has received technical assistance from AID and its predecessor agencies since 1952. This technical assistance was made available through a cooperative agricultural service (SICAP) from 1952 to 1962. At the end of 1962, SICAP was phased into the MACI and the amount of U.S. technical assistance reduced to five U.S. technicians. These five technicians remained in the MACI until the beginning of 1964. Since 1964, technical assistance has been provided on a short term basis as required by specific projects.

In 1964 AID negotiated the first development loan (525-L-010) with the GOP for agricultural development. The MACI was the implementing agency of the GOP for this loan. This loan project was designed to improve agricultural and livestock production by providing the buildings and equipment necessary to carry out a

-2-

more intensive technical assistance program in specific underdeveloped rural areas in Panama; and by providing funds for supervised credit to small livestock producers.

The administration of this project was generally considered to be very good. USAID Audit Report No. 68-8 dated November 30, 1967 states the following:

" The Spirit of the Alliance caught by both the USAID and the MACI personnel generated a warm cooperative effort. As a result, overall administration has been quite satisfactory. Conformance with the provisions of the Loan Agreement and applicable A.I.D. directives has generally been good. The resultant accomplishments, although not without problem areas has been quite successful."

The GOP through the MACI did two things that undoubtedly contributed to effective, timely administration of the project. First, they appointed a capable, qualified team to negotiate the loan agreement with A.I.D. This team consisted of representatives of MACI, the National Planning Office, the Controller General of the Republic, the Agrarian Reform Commission and legal counsel. Although this team had very little or no experience with development loan projects, in this case it probably was an advantage rather than a disadvantage because it meant that the Loan Agreement had to be discussed word for word. Consequently, when the negotiations were complete all parties understood their collective and individual responsibilities. Secondly, the MACI organized, appointed and maintained a project management team which was given specific responsibility for the conduct of this project. This team consisted of a project manager, a business manager, an accountant, a project engineer and two draftsmen, a translator and a secretary. Other MACI personnel assisted during peak workload periods.

The MACI has direct responsibility for the operation and maintenance of this program and the physical facilities contained therein. Also, the responsibility of the MACI for the buildings constructed and the equipment purchased does not end with the completion of construction and the acquisition of equipment.

The Mission's experience and audit reports confirm that the MACI

-3-

has the financial and human resources and is effectively applying these inputs in the continuing conduct of this and their other programs.

The proposed follow-up loan project will be operated similarly to the 525-L-010 project. However, experience gained in the first program should increase management efficiency and eliminate major problem areas.

3) RECOMMENDATIONS: I firmly believe that the GOP has demonstrated through the MACI its ability to provide and maintain effective services to the rural people of Panama. For this reason, I recommend that you certify that the project which is to be financed by the proposed loan will be well used and maintained as required by Section 611(e) of the Foreign Assistance Act.



Thomas O. Stephens
Rural Development Officer
USAID/Panama

cc: Mr. William H. Ketner, ADO, USAID/Panama
Mr. John Banville, CD, USAID/Panama

Attachment: Certification

CERTIFICATION PURSUANT TO SECTION 611 (e)

OF THE FOREIGN ASSISTANCE ACT OF 1961, AS AMENDED

I, Harry Ackerman, the principal officer of the Agency for International Development in Panama, having taken into account, among other things, the maintenance and utilization of projects in Panama previously financed or assisted by the United States, do hereby certify that in my judgement Panama has both the financial capability and the human resources capability to effectively maintain and utilize the capital assistance project, Agricultural Development Loan.

This judgement is based on the Mission's experience with MACI on previously financed AID Agricultural Development projects. One loan project and a number of grant projects have been completed during the period of AID assistance in Panama. Most significant of these was the AID development loan project No. 525-L-010. This loan project was designed to improve agricultural and livestock production by providing the buildings and equipment necessary to carry out a more intensive technical assistance program in specific underdeveloped rural areas in Panama; and by providing funds for supervised credit to small livestock producers.

The MACI has direct responsibility for the operation and maintenance of this program and the physical facilities contained therein. Also, the responsibility of the MACI for the buildings constructed and the equipment purchased does not end with the completion of construction and the acquisition of equipment; they provide continued maintenance.

The Mission's experience and audit reports confirm that the MACI has the financial and human resources and is effectively applying these inputs in the continuing conduct and maintenance of this and their other programs.



Harry Ackerman
Acting Director
USAID Panama

AIRGRAM

DEPARTMENT OF STATE

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Shaban / B. W. B. / J. P. C.
EXT. 220,00

DATE SENT

3/8/77

FROM Panama City
E.O. 11652: N/A

SUBJECT Completed Special Evaluations w/attms

REFERENCE AIDTO CIRC A-29 dated January 25, 1977

1. The status of special evaluations proposed in our FY 72 Evaluation Plan (TOAID A-169 of July 13, 1971) as requested reair follows:
 - a. Agricultural Development (525-L-010): Official project files were shipped to AID/W Records Depository in July 1975.
 - b. Klutznick- Mission files only contain initial report by the Klutznick group, which made recommendations resulting in Panama City Streets (525-L-025); Panama City Sewerage Facilities (525-L-026); and Cooperative Housing (525-L-027) loans.
 - c. & d. Cooperative Housing Loan (525-L-027) and FCH Cooperative Housing Project (525-15-870-119). The final report on both projects prepared in February 1974 is attached.
 - e. Savings and Loan System (525-L-015). USAID does not have scope of work plan referred in TOAID A-169 of July 13, 1971. A final report was performed in 1972 by Instituto de Fomento de Hipotecas Aseguradas. Mission copy is in Spanish. Should PPC/DI desire a copy of this report, which runs over 100 pages, please advise and Mission will make and forward a copy.

JMA
JORDEN
for

Attachments: a/s

Att's sent PPC - 3-15-77

PAGE OF PAGES
OF 1

DRAWN BY <i>Dareen D. Wyck</i>	OFFICE ODP	PHONE NO.	DATE 3/4/77	APPROVED BY <i>Ault M. [Signature]</i> elsz, Chief, O
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AID AND OTHER CLEARANCES
ODP:MSZ&k (in draft)

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